

&lt;400&gt; 4730

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Met Lys Lys Ala Glu Met Gly Arg Phe Ser Ile Ser Pro Asp Glu Asp
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Ser Ser Ser Tyr Ser Ser Asn Ser Asp Phe Asn Tyr Ser Tyr Pro Thr
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Lys Gln Ala Ala Leu Lys Ser His Tyr Ala Asp Val Asp Pro Glu Asn
 35           40           45
Gln Asn Phe Leu Leu Glu Ser Asn Leu Gly Lys Lys Lys Tyr Glu Thr
 50           55           60
Glu Phe His Pro Gly Thr Thr Ser Phe Gly Met Ser Val Phe Asn Leu
 65           70           75           80
Ser Asn Ala Ile Val Gly Ser Gly Ile Leu Gly Leu Ser Tyr Ala Met
 85           90           95
Ala Asn Thr Gly Ile Ala Leu Phe Ile Ile Leu Leu Thr Phe Val Ser
 100          105          110
Ile Phe Ser Leu Tyr Ser Val His Leu Leu Lys Thr Ala Asn Glu
 115          120          125
Gly Gly Ser Leu Leu Tyr Glu Gln Leu Gly Tyr Lys Ala Ser Gly Leu
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Val Gly Lys Leu
145

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&lt;210&gt; 4731

&lt;211&gt; 2417

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4731

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gcaccttcct tccatcagag tctgctgccc ggggtgggctg ggaaggaggg agatacaaa
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780

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<210> 4732  
<211> 129  
<212> PRT  
<213> Homo sapiens

<400> 4732  
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20 25 30  
Ala Arg Met Ala Gly His Val Ser Val Leu Val Ser His Phe Pro Pro  
35 40 45  
Ser Val Thr Tyr Leu Gly Ile Pro Gln Gly Leu Leu Glu Cys Asp Cys  
50 55 60  
Pro Leu Pro Ser Cys Leu Gly Tyr Lys Ser Trp Pro Tyr Val Pro Ala  
65 70 75 80  
Val Arg Gly Ser Gly Asn Pro Thr Gln Pro Pro Val Leu Gly Trp Ser  
85 90 95  
Val Ser Ile His Pro Leu Val Val Ile Glu Ala Ala Leu Pro Val Leu  
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Gly Glu Asp Ile Trp Ala Thr Arg Ala Pro Leu Ala Pro Ser Arg Arg  
115 120 125  
Lys

<210> 4733  
<211> 543  
<212> DNA  
<213> Homo sapiens

<400> 4733  
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tccattccca ataactgaa gctgcagtgt gtatcctgga acaaggaaca agggttcata  
180  
gcatgcggtg gtgaagatgg attactgaaa gttttgaaat tagagacgca gacagatgat  
240  
gcaaaaattga ggggccttgc agccccagt aacctttcta tgaatcagac tcttgaaggt  
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gatgaaaacg ggcttatcat tgtgtggatg ttatataaag gctcttggat tgaggagatg  
420  
atcaacaatc gaaataaatc agttgttcgc agtatgagct ggaatgctga cggacagaag  
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tgg  
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<210> 4734  
 <211> 181  
 <212> PRT  
 <213> Homo sapiens

<400> 4734  
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 Val Glu Gly Leu Ser Gly Arg Arg Asp Pro Leu Gly Asp Pro Thr Met  
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 Phe Phe Tyr Leu Ser Lys Lys Ile Ser Ile Pro Asn Asn Val Lys Leu  
 35 40 45  
 Gln Cys Val Ser Trp Asn Lys Glu Gln Gly Phe Ile Ala Cys Gly Gly  
 50 55 60  
 Glu Asp Gly Leu Leu Lys Val Leu Lys Leu Glu Thr Gln Thr Asp Asp  
 65 70 75 80  
 Ala Lys Leu Arg Gly Leu Ala Ala Pro Ser Asn Leu Ser Met Asn Gln  
 85 90 95  
 Thr Leu Glu Gly His Ser Gly Ser Val Gln Val Val Thr Trp Asn Glu  
 100 105 110  
 Gln Tyr Gln Lys Leu Thr Thr Ser Asp Glu Asn Gly Leu Ile Ile Val  
 115 120 125  
 Trp Met Leu Tyr Lys Gly Ser Trp Ile Glu Glu Met Ile Asn Asn Arg  
 130 135 140  
 Asn Lys Ser Val Val Arg Ser Met Ser Trp Asn Ala Asp Gly Gln Lys  
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 Ile Cys Ile Val Tyr Glu Asp Gly Ala Val Ile Val Gly Ser Val Asp  
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 Gly Asn Arg Ile Trp  
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<210> 4735  
 <211> 300  
 <212> DNA  
 <213> Homo sapiens

<400> 4735  
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 120  
 aggagctgcc ggcggctctg ccaagtccag cagcaatggg cctgtggcca gtgcacagta  
 180  
 cgtgtcccag gcaaaagcct cagctttgca gcagcagcag tactaccagt ggtaccagca  
 240  
 ggacaactat gcctaccctt acagctacta ctatcccatg ccccaggcc ccggcatgga  
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<210> 4736  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

<400> 4736  
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 Glu Asn Pro Glu Trp Glu Lys Ala Arg Gln Ala Leu Ala Ser Ile Ser  
 20 25 30  
 Lys Ser Gly Ala Ala Gly Gly Ser Ala Lys Ser Ser Ser Asn Gly Pro  
 35 40 45  
 Val Ala Ser Ala Gln Tyr Val Ser Gln Ala Lys Ala Ser Ala Leu Gln  
 50 55 60  
 Gln Gln Gln Tyr Tyr Gln Trp Tyr Gln Gln Asp Asn Tyr Ala Tyr Pro  
 65 70 75 80  
 Tyr Ser Tyr Tyr Tyr Pro Met Pro Pro Gly Pro Gly Met  
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<210> 4737  
 <211> 2602  
 <212> DNA  
 <213> Homo sapiens

<400> 4737  
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 120  
 caagctcggc ccctttcaac tctgccaaga atggctccca cctgggtctc agacattccc  
 180  
 ctggtccaac ccccaggcca tcaagatgtc tcagagaggc ggctagacac ccagagacct  
 240  
 caagtgaaca tgtgggaacg ggatgtttcc agtgacaggc aggagccagg gcggagaggc  
 300  
 aggtcctggg ggctggaggg gtcacaggcc ctgagccagc aggctgaggt gategttcgg  
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 420  
 cagcagaaga tgaggctaga ggcccaggcc atggagctag aggctctggc acgggcggag  
 480  
 aaggccggcc gagctgaggc tgagggcctg cgtgctgctt tggctggggc tgaggttgtc  
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 cggaagaact tggaagaggg gaggcagcgg gagctggaag aggttcagag gctgcaccaa  
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 gagcagctgt cctctttgac acaggctcac gaggaggctc ttccagttt gaccagcaag  
 660  
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 720  
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caaccttcag attccctgga gcctgagttt accaggaagt gccagtccct gctgaaccgc  
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1260  
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1320  
tggtggcagc agcagacagc ctcagccgag gagcagctga ggcttgtggt caatgctgtc  
1380  
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ctgattgttc gaaagcttgc ccttgctcag ctgcgccagg agagctgtcc cctaccacca  
1560  
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1620  
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1680  
ggggaggcag agcggcagca gctgagcaag gtggcccagc agctggagca ggagctgcag  
1740  
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1800  
caggagagca cagaggaggc tgccagtctg cggcaggagc tgaccagca gcaggaaactc  
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tacgggcaag ccctgcaaga aaaggtggct gaagtggaaa ctcggtctcg ggagcaactc  
1920  
tcagacacag agaggaggct gaacgaggct cggaggggagc atgccaaggc cgtggtctcc  
1980  
ttgcgccaga ttcagcgagc agccgcccag gaaaaggagc ggagccagga actcaggcgt  
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ctgcaggagg aggcccggaa ggaggagggg cagcgactgg cccggcgctt gcaggagcta  
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2160  
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2280  
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2340  
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2400  
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2460  
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2520  
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2580  
aaaaaaaaa aaaaaaaaaa aa  
2602

<210> 4738  
 <211> 756  
 <212> PRT  
 <213> Homo sapiens

<400> 4738  
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 His Gln Asp Val Ser Glu Arg Arg Leu Asp Thr Gln Arg Pro Gln Val  
 20 25 30  
 Thr Met Trp Glu Arg Asp Val Ser Ser Asp Arg Gln Glu Pro Gly Arg  
 35 40 45  
 Arg Gly Arg Ser Trp Gly Leu Glu Gly Ser Gln Ala Leu Ser Gln Gln  
 50 55 60  
 Ala Glu Val Ile Val Arg Gln Leu Gln Glu Leu Arg Arg Leu Glu Glu  
 65 70 75 80  
 Glu Val Arg Leu Leu Arg Glu Thr Ser Leu Gln Gln Lys Met Arg Leu  
 85 90 95  
 Glu Ala Gln Ala Met Glu Leu Glu Ala Leu Ala Arg Ala Glu Lys Ala  
 100 105 110  
 Gly Arg Ala Glu Ala Glu Gly Leu Arg Ala Ala Leu Ala Gly Ala Glu  
 115 120 125  
 Val Val Arg Lys Asn Leu Glu Glu Gly Arg Gln Arg Glu Leu Glu Glu  
 130 135 140  
 Val Gln Arg Leu His Gln Glu Gln Leu Ser Ser Leu Thr Gln Ala His  
 145 150 155 160  
 Glu Glu Ala Leu Ser Ser Leu Thr Ser Lys Ala Glu Gly Leu Glu Lys  
 165 170 175  
 Ser Leu Ser Ser Leu Glu Thr Arg Arg Ala Gly Glu Ala Lys Glu Leu  
 180 185 190  
 Ala Glu Ala Gln Arg Glu Ala Glu Leu Leu Arg Lys Gln Leu Ser Lys  
 195 200 205  
 Thr Gln Glu Asp Leu Glu Ala Gln Val Thr Leu Val Glu Asn Leu Arg  
 210 215 220  
 Lys Tyr Val Gly Glu Gln Val Pro Ser Glu Val His Ser Gln Thr Trp  
 225 230 235 240  
 Glu Leu Glu Arg Gln Lys Leu Leu Glu Thr Met Gln Leu Leu Gln Glu  
 245 250 255  
 Asp Arg Asp Ser Leu His Ala Thr Ala Glu Leu Leu Gln Val Arg Val  
 260 265 270  
 Gln Ser Leu Thr His Ile Leu Ala Leu Gln Glu Glu Leu Thr Arg  
 275 280 285  
 Lys Val Gln Pro Ser Asp Ser Leu Glu Pro Glu Phe Thr Arg Lys Cys  
 290 295 300  
 Gln Ser Leu Leu Asn Arg Trp Arg Glu Lys Val Phe Ala Leu Met Val  
 305 310 315 320  
 Gln Leu Lys Ala Gln Glu Leu Glu His Ser Asp Ser Val Lys Gln Leu  
 325 330 335  
 Lys Gly Gln Val Ala Ser Leu Gln Glu Lys Val Thr Ser Gln Ser Gln  
 340 345 350  
 Glu Gln Ala Ile Leu Gln Arg Ser Leu Gln Asp Lys Ala Ala Glu Val  
 355 360 365  
 Glu Val Glu Arg Met Gly Ala Lys Gly Leu Gln Leu Glu Leu Ser Arg

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      370              375              380
Ala Gln Glu Ala Arg Arg Trp Trp Gln Gln Gln Thr Ala Ser Ala Glu
385              390              395              400
Glu Gln Leu Arg Leu Val Val Asn Ala Val Ser Ser Ser Gln Ile Trp
      405              410              415
Leu Glu Thr Thr Met Ala Lys Val Glu Gly Ala Ala Ala Gln Leu Pro
      420              425              430
Ser Leu Asn Asn Arg Leu Ser Tyr Ala Val Arg Lys Val His Thr Ile
      435              440              445
Arg Gly Leu Ile Ala Arg Lys Leu Ala Leu Ala Gln Leu Arg Gln Glu
      450              455              460
Ser Cys Pro Leu Pro Pro Val Thr Asp Val Ser Leu Glu Leu Gln
465              470              475              480
Gln Leu Arg Glu Glu Arg Asn Arg Leu Asp Ala Glu Leu Gln Leu Ser
      485              490              495
Ala Arg Leu Ile Gln Gln Glu Val Gly Arg Ala Arg Glu Gln Gly Glu
      500              505              510
Ala Glu Arg Gln Gln Leu Ser Lys Val Ala Gln Gln Leu Glu Gln Glu
      515              520              525
Leu Gln Gln Thr Gln Glu Ser Leu Ala Ser Leu Gly Leu Gln Leu Glu
      530              535              540
Val Ala Arg Gln Gly Gln Gln Glu Ser Thr Glu Glu Ala Ala Ser Leu
545              550              555              560
Arg Gln Glu Leu Thr Gln Gln Gln Glu Leu Tyr Gly Gln Ala Leu Gln
      565              570              575
Glu Lys Val Ala Glu Val Glu Thr Arg Leu Arg Glu Gln Leu Ser Asp
      580              585              590
Thr Glu Arg Arg Leu Asn Glu Ala Arg Arg Glu His Ala Lys Ala Val
      595              600              605
Val Ser Leu Arg Gln Ile Gln Arg Arg Ala Ala Gln Glu Lys Glu Arg
      610              615              620
Ser Gln Glu Leu Arg Arg Leu Gln Glu Glu Ala Arg Lys Glu Glu Gly
625              630              635              640
Gln Arg Leu Ala Arg Arg Leu Gln Glu Leu Glu Arg Asp Lys Asn Leu
      645              650              655
Met Leu Ala Thr Leu Gln Gln Glu Gly Leu Leu Ser Arg Tyr Lys Gln
      660              665              670
Gln Arg Leu Leu Thr Val Leu Pro Ser Leu Leu Asp Lys Lys Lys Ser
      675              680              685
Val Val Ser Ser Pro Arg Pro Pro Glu Cys Ser Ala Ser Ala Pro Val
      690              695              700
Ala Ala Ala Val Pro Thr Arg Glu Ser Ile Lys Gly Ser Leu Ser Val
705              710              715              720
Leu Leu Asp Asp Leu Gln Asp Leu Ser Glu Ala Ile Ser Lys Glu Glu
      725              730              735
Ala Val Cys Gln Gly Asp Asn Leu Asp Arg Cys Ser Ser Ser Asn Pro
      740              745              750
Gln Met Ser Ser
      755

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&lt;210&gt; 4739

&lt;211&gt; 684

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4739

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 120  
 tagccctctc tctgctcct ttaaactctg aacttctagg atgggagaat gggaactttt  
 180  
 gcaggttgag attcatagtg aaatcgggtc aagaagtgat cagatgcaaa gcacagggca  
 240  
 gttcattact ataccatggc tgaggtcttc ctgggcacca ggccctgggc tcagcacttg  
 300  
 gctcagctctg caccttggac cctgccagag ccctccacag caggtgctct caggcaaggc  
 360  
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 420  
 ccaagcagga gggaaccatt agcagcctga ggagctggct ggctggggagc ctcggggacc  
 480  
 gccagcctt gctcccagct caccacaag atgtggacag ctcttgtgct catttggatt  
 540  
 ttctccttgt ccttatctga aagccatgcg gcatccaacg atccacgtaa gtgagaaagc  
 600  
 tgtgtgactg ctggatgggc ccacggtggc cacaaagcat gctgagccct tgaaagcagc  
 660  
 atctgcaaac ccaggccaac gcgt  
 684

&lt;210&gt; 4740

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4740

Met Leu Leu Ser Arg Ala Gln His Ala Leu Trp Pro Pro Trp Ala His  
 1 5 10 15  
 Pro Ala Val Thr Gln Leu Ser His Leu Arg Gly Ser Leu Asp Ala Ala  
 20 25 30  
 Trp Leu Ser Asp Lys Asp Lys Glu Lys Ile Gln Met Ser Thr Arg Ala  
 35 40 45  
 Val His Ile Leu Trp Val Ser Trp Glu Gln Gly Trp Ala Val Pro Glu  
 50 55 60  
 Ala Pro Ser Gln Pro Ala Pro Gln Ala Ala Asn Gly Ser Leu Leu Leu  
 65 70 75 80  
 Gly Gln Gly Ile Cys Gly Gln Glu Ser Thr Leu Val Arg Arg Arg Leu  
 85 90 95  
 Ala Ser Asn Thr Gln Pro Cys Leu Arg Ala Pro Ala Val Glu Gly Ser  
 100 105 110  
 Gly Arg Val Gln Gly Ala Asp  
 115

&lt;210&gt; 4741

&lt;211&gt; 411

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<400> 4741  
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 120  
 ttccgaaaaa aagaggggaa ttttttaaaa aaccgaaaag gggggaagg ggggggtata  
 180  
 aaagataaaa tttggttttt tgggggggaa aatttggaaca cccaccctc gggttttttt  
 240  
 tccccacccc aaaaaatttt aaaagggggc cctaaaaaaa attttttctt taatttccaa  
 300  
 ataaaaaaa aatgggggttc caaaatcatt gaaaaatagg ggggactcca aaaccttgaa  
 360  
 ttttccaag ggggaccact aaaatttacc ctttttttgg ggttttgggg g  
 411

<210> 4742  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 4742  
 Met Ile Leu Glu Pro His Phe Phe Phe Ile Trp Lys Leu Lys Lys Lys  
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 Phe Phe Leu Gly Pro Pro Phe Lys Ile Phe Trp Gly Gly Glu Lys Lys  
 20 25 30  
 Pro Glu Gly Gly Val Ser Lys Phe Ser Pro Pro Lys Asn Gln Ile Leu  
 35 40 45  
 Ser Phe Ile Pro Pro Pro Phe Pro Pro Phe Gly Phe Phe Lys Lys Phe  
 50 55 60  
 Pro Ser Phe Phe Arg Lys Gly Lys Gly Gly Glu Arg Gly Gly Gln Arg  
 65 70 75 80  
 Lys Thr Pro Phe Phe Leu Arg Lys Lys Arg Glu Lys Lys Lys Lys  
 85 90 95  
 Lys Glu Arg Lys Thr Pro Val Asp Leu Arg Glu Val Asn  
 100 105

<210> 4743  
 <211> 473  
 <212> DNA  
 <213> Homo sapiens

<400> 4743  
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 120  
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 180  
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<210> 4744

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4744

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			20					25					30		
Arg	Val	Ile	Glu	Ser	Arg	Tyr	Leu	Gln	Tyr	Glu	Lys	Lys	Thr	Thr	Gln
		35					40					45			
Lys	Ala	Pro	Ala	Gly	Asp	Gly	Ser	Gln	Thr	Arg	Gly	Lys	Met	Ser	Glu
	50					55				60					
Gly	Gly	Arg	Lys	Ser	Ser	Leu	Leu	Gln	Lys	Ser	Lys	Ala	Asp	Ser	Ser
65					70				75					80	
Gly	Val	Gly	Lys	Gly	Asp	Leu	Gln	Ser	Thr	Leu	Leu	Glu	Gly	His	Gly
			85					90					95		
Thr	Ala	Pro	Pro	Asp	Leu	Asp	Leu	Ser	Ala	Ile	Asn	Asp	Lys	Ser	Ile
			100					105					110		
Val	Lys	Lys	Thr	Pro	Gln	Leu	Ala	Lys	Thr	Ile	Ser	Lys	Lys	Pro	Glu
	115					120						125			
Ser	Thr	Ser	Phe	Ser	Ala	Pro	Arg	Lys	Lys	Ser	Pro	Asp	Leu	Ser	Glu
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<211> 666

<212> DNA

<213> Homo sapiens

<400> 4745

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<210> 4746

<211> 221

<212> PRT

<213> Homo sapiens

<400> 4746

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			20					25					30		
Ser	Ala	Gly	Ile	Gln	Arg	Ala	Gln	Ile	Gln	Lys	Glu	Leu	Trp	Arg	Ile
		35				40						45			
Gln	Asp	Val	Met	Glu	Gly	Leu	Ser	Lys	His	Lys	Gln	Gln	Arg	Gly	Thr
	50					55				60					
Thr	Glu	Ile	Gly	Met	Ile	Gly	Ser	Lys	Pro	Phe	Ser	Thr	Val	Lys	Tyr
65					70					75				80	
Lys	Asn	Glu	Gly	Pro	Asp	Tyr	Arg	Leu	Tyr	Lys	Ser	Glu	Pro	Glu	Leu
			85					90					95		
Thr	Thr	Val	Ala	Glu	Val	Asp	Glu	Ser	Asn	Gly	Glu	Glu	Lys	Ser	Glu
		100					105						110		
Pro	Val	Ser	Glu	Ile	Glu	Thr	Ser	Val	Val	Lys	Gly	Ser	His	Phe	Pro
		115				120						125			
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			165					170					175		
Glu	Ser	Thr	Arg	Pro	Arg	Met	Thr	Val	Glu	Glu	Gln	Met	Glu	Arg	Ile
		180				185						190			
Arg	Arg	Tyr	Gln	Gln	Ala	Cys	Leu	Arg	Glu	Lys	Lys	Lys	Gly	Leu	Asn
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<210> 4747

<211> 1091

<212> DNA

<213> Homo sapiens

<400> 4747

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&lt;210&gt; 4748

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4748

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Met	Glu	Glu	Glu	Thr	His	Thr	Asp	Ala	Lys	Ile	Arg	Ala	Glu	Asn	Gly
			20					25					30		
Thr	Gly	Ser	Ser	Pro	Arg	Gly	Pro	Gly	Cys	Ser	Leu	Arg	His	Phe	Ala
		35					40				45				
Cys	Glu	Gln	Asn	Leu	Leu	Ser	Arg	Pro	Asp	Gly	Ser	Ala	Ser	Phe	Leu
	50					55				60					
Gln	Gly	Asp	Thr	Ser	Val	Leu	Ala	Gly	Val	Tyr	Gly	Pro	Ala	Glu	Val
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<400> 4749
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660

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&lt;210&gt; 4750

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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Val Leu Ala Val Leu Leu Thr Leu Val Phe Trp Lys Leu Ile Arg Ser  
 50 55 60  
 Arg Arg Ser Ser Gln Arg Ala Val Leu Leu Val Gly Leu Cys Asp Ser  
 65 70 75 80  
 Gly Lys Thr Leu Leu Phe Val Arg Leu Leu Thr Gly Leu Tyr Arg Asp  
 85 90 95  
 Thr Gln Thr Ser Ile Thr Asp Ser Cys Ala Val Tyr Arg Val Asn Asn  
 100 105 110  
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 115 120 125  
 Leu Arg Leu Gln Phe Leu Glu Arg Phe Lys Ser Ser Ala Arg Ala Ile  
 130 135 140  
 Val Phe Val Val Asp Ser Ala Ala Phe Gln Arg Glu Val Lys Asp Val  
 145 150 155 160  
 Ala Glu Phe Leu Tyr Gln Val Leu Ile Asp Ser Met Gly Leu Lys Asn  
 165 170 175  
 Thr Pro Ser Phe Leu Ile Ala Cys Asn Lys Gln Asp Ile Ala Met Ala  
 180 185 190  
 Lys Ser Ala Lys Leu Ile Gln Gln Leu Glu Lys Glu Leu Asn Thr  
 195 200 205  
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 210 215 220  
 Thr Ala Pro Ala Gln Leu Gly Lys Lys Gly Lys Glu Phe Glu Phe Ser  
 225 230 235 240  
 Gln Leu Pro Leu Lys Val Glu Phe Leu Glu Cys Ser Ala Lys Gly Gly  
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<210> 4751  
 <211> 2777  
 <212> DNA  
 <213> Homo sapiens

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<210> 4752

<211> 335

<212> PRT

<213> Homo sapiens

<400> 4752

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			20					25					30		
Leu	Leu	Asp	Ser	Leu	His	Val	Gln	Thr	Phe	Phe	His	Arg	Phe	Asp	Pro
		35					40					45			
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Phe	Thr	Pro	Thr	Thr	Leu	Pro	Thr	Ser	Gln	Asn	Ser	Ile	His	Pro	Val
			85				90							95	
Arg	Val	Val	Asn	Gly	Gln	Thr	Ala	Thr	Ile	Ala	Lys	Thr	Phe	Pro	Met



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Val Lys Ser His Thr Glu Thr Asp Glu Lys Gln Thr Glu Ser Arg Thr
      145      150      155      160
Ile Thr Pro Pro Ala Ala Pro Lys Pro Lys Arg Glu Glu Asn Pro Gln
      165      170      175
Lys Leu Ala Phe Met Val Ser Leu Gly Leu Val Thr His Asp His Leu
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Glu Glu Ile Gln Ser Lys Arg Gln Glu Arg Lys Arg Arg Thr Thr Ala
      195      200      205
Asn Pro Val Tyr Ser Gly Ala Val Phe Glu Pro Glu Arg Lys Lys Ser
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Ser Val Cys Arg Lys Ser Gly Gln Leu Leu Met Cys Asp Thr Cys Ser
      260      265      270
Arg Val Tyr His Leu Asp Cys Leu Asp Pro Pro Leu Lys Thr Ile Pro
      275      280      285
Lys Gly Met Trp Ile Cys Pro Arg Cys Gln Asp Gln Met Leu Lys Lys
      290      295      300
Glu Glu Ala Ile Pro Trp Xaa Trp Asn Phe Ser Asn Cys Ser Phe Leu
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 4754

&lt;211&gt; 748

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4754

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 35 40 45  
 Ser Asp Val Glu Gly Gly Glu Val Leu Tyr Leu Val His Tyr Cys Gly  
 50 55 60  
 Trp Asn Val Arg Tyr Asp Glu Trp Ile Lys Ala Asp Lys Ile Val Arg  
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 Pro Ala Asp Lys Asn Val Pro Lys Ile Lys His Arg Lys Lys Ile Lys  
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 115 120 125  
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 130 135 140  
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 145 150 155 160  
 Leu Gln Ala Ser Glu Ser Ser Ala Glu Asp Ser Glu Gln Glu Asp Glu  
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 Arg Gly Ala Gln Asp Met Asp Asn Asn Gly Lys Glu Glu Ser Lys Ile  
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 Asp His Leu Thr Asn Asn Arg Asn Asp Leu Ile Ser Lys Glu Glu Gln  
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 Lys Arg Lys Asp Val Lys Lys Asp Thr Thr Asp Lys Ser Ser Lys Pro  
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Pro Ile Glu Glu Lys Thr Val Glu Val Asn Asp Arg Lys Ala Glu Phe
          450          455          460
Pro Ser Ser Gly Ser Asn Ser Val Leu Asn Thr Pro Pro Thr Thr Pro
465          470          475          480
Glu Ser Pro Ser Ser Val Thr Val Thr Glu Gly Ser Arg Gln Gln Ser
          485          490          495
Ser Val Thr Val Ser Glu Pro Leu Ala Pro Asn Gln Glu Glu Val Arg
          500          505          510
Ser Ile Lys Ser Glu Thr Asp Ser Thr Ile Glu Val Asp Ser Val Ala
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Gly Glu Leu Gln Asp Leu Gln Ser Glu Gly Asn Ser Ser Pro Ala Gly
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Phe Asp Ala Ser Val Ser Ser Ser Ser Ser Asn Gln Pro Glu Pro Glu
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Val Val Asn Asn Thr Lys Lys Gly Lys Gly Thr Asn Ser Ser Asp Ser
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625          630          635          640
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Leu Lys Glu Pro Ser Asn Arg Leu Pro Lys Val Tyr Lys Trp Ser Phe
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Gln Met Ser Asp Leu Glu Asn Met Thr Ser Ala Glu Arg Ile Thr Ile
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&lt;210&gt; 4755

&lt;211&gt; 2093

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4755

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<211> 188

<212> PRT

<213> Homo sapiens

<400> 4756

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65					70					75				80	
Thr	Pro	Glu	Trp	Val	Leu	Ser	Trp	Lys	Ser	Lys	Leu	Pro	Leu	Gln	Thr
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His	Gly	Thr	Leu	Val	Gly	Leu	Leu	Pro	Val	Pro	His	Pro	Ile	Leu	Ile
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<210> 4757

<211> 272

<212> DNA

<213> Homo sapiens

<400> 4757

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<210> 4758

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4758

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			20					25					30		
Leu	Ala	Ala	Gly	Asp	Val	Asp	Gly	Asp	Val	Phe	Val	Phe	Ser	Tyr	Ser
		35					40					45			
Cys	Gln	Glu	Gly	Glu	Thr	Lys	Glu	Leu	Val	Ile	Arg	Ser	His	Leu	Lys
	50					55					60				
Ala	Cys	Arg	Ala	Val	Ala	Phe	Ser	Glu	Asp	Gly	Gln	Lys	Leu	Ile	Thr
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Val	Ser	Lys	Asp	Lys	Ala	Ile	His	Val	Leu						
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<210> 4759

<211> 1087

<212> DNA

<213> Homo sapiens

<400> 4759

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<210> 4760

<211> 78

<212> PRT

<213> Homo sapiens

<400> 4760

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		20					25					30			
Lys	Gly	Gln	Thr	Lys	Thr	Leu	Phe	Glu	Phe	Ser	Ser	Ser	Arg	Ala	Gly
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Phe	Leu	Pro	Leu	Trp	Asp	Val	Ala	Ala	Thr	Asp	Phe	Gly	Gln	Thr	Asn
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Gln	Lys	Phe	Gly	Phe	Glu	Leu	Gly	Pro	Val	Cys	Phe	Ser	Ser		
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<210> 4761

<211> 3973

<212> DNA

<213> Homo sapiens

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<210> 4762

<211> 251

<212> PRT

<213> Homo sapiens

<400> 4762

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 35 40 45  
 Leu Asp Pro Arg Leu Val Met Ala Tyr Glu Glu Lys Glu Glu Arg Asp  
 50 55 60  
 Arg Ala Ser Gly Tyr Arg Lys Arg Gly Pro Lys Pro Lys Arg Leu Leu  
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 Leu Gln Arg Leu Tyr Ser Met Asp Leu Arg Ser Ser His Lys Ala Lys  
 85 90 95  
 Gly Lys Glu Lys Leu Cys Phe Ser Leu Thr Cys Pro Leu Gly Ser Gly  
 100 105 110  
 Ser Pro Glu Gly Val Val Lys Ala Gly Ala Pro Glu Leu Val Asp Lys  
 115 120 125  
 Gly Pro Leu Val Pro Thr Leu Pro Phe Pro Leu Arg Lys Pro Arg Lys  
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 Ala His Lys Tyr Leu Arg Leu Ser Arg Lys Lys Phe Pro Pro Arg Gly  
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 Pro Asn Leu Glu Ser His Ser His Arg Arg Glu Leu Phe Leu Gln Glu  
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 Pro Pro Ala Pro Asp Val Leu Gln Ala Ala Gly Glu Trp Glu Pro Ala  
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 Ala Gln Pro Pro Glu Glu Glu Ala Asp Ala Asp Leu Ala Glu Gly Pro  
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 Pro Pro Trp Thr Pro Ala Leu Pro Ser Ser Glu Val Thr Val Thr Asp  
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<212> DNA  
<213> Homo sapiens

<400> 4763  
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&lt;210&gt; 4764

&lt;211&gt; 719

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4764

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 Leu Lys Lys Arg Glu Ile Lys Leu Ser Asp Asp Phe Asp Ser Pro Val  
 35 40 45  
 Lys Gly Pro Leu Cys Lys Ser Val Thr Pro Thr Lys Glu Phe Leu Lys  
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 Asp Glu Ile Lys Gln Glu Glu Glu Thr Cys Lys Arg Ile Ser Thr Ile  
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 Thr Ala Leu Gly His Glu Gly Lys Gln Leu Val Asn Gly Glu Val Ser  
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 Asp Glu Arg Val Ala Pro Asn Phe Lys Thr Glu Pro Ile Glu Thr Lys  
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 Phe Tyr Glu Thr Lys Glu Glu Ser Tyr Ser Pro Ser Lys Asp Arg Asn  
 115 120 125  
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 130 135 140  
 Ser Met Lys Thr Gly Glu Leu Glu Lys Glu Thr Ala Pro Leu Arg Lys  
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Lys Lys Thr Phe Leu Asp Lys Asp Ala Gln Arg Leu Ser Pro Ile Pro
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Glu Glu Val Pro Lys Ser Thr Leu Glu Ser Glu Lys Pro Gly Ser Pro
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Glu Ala Ala Glu Thr Ser Pro Pro Ser Asn Ile Ile Asp His Cys Glu
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Lys Leu Ala Ser Glu Lys Glu Val Val Glu Cys Gln Ser Thr Ser Thr
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Val Gly Gly Gln Ser Val Lys Lys Val Asp Leu Glu Thr Leu Lys Glu
305      310      315      320
Asp Ser Glu Phe Thr Lys Val Glu Met Asp Asn Leu Asp Asn Ala Gln
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Thr Ser Gly Ile Glu Glu Pro Ser Glu Thr Lys Gly Ser Met Gln Lys
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Ser Lys Phe Lys Tyr Lys Leu Val Pro Glu Glu Glu Thr Thr Ala Ser
      355      360      365
Glu Asn Thr Glu Ile Thr Ser Glu Arg Gln Lys Glu Gly Ile Lys Leu
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Thr Ile Arg Ile Ser Ser Arg Lys Lys Lys Pro Asp Ser Pro Pro Lys
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Val Leu Glu Pro Glu Asn Lys Gln Glu Lys Thr Glu Lys Glu Glu Glu
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Lys Thr Asn Val Gly Arg Thr Leu Arg Arg Ser Pro Arg Ile Ser Arg
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Pro Thr Ala Lys Val Ala Glu Ile Arg Asp Gln Lys Ala Asp Lys Lys
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Lys Thr Asp Lys Lys Glu Ile Leu Lys Lys Ser Glu Lys Asp Thr Asn
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Val Leu Gly His Val Ala Asp Gly Asn Ile Pro Ala Met Met Lys Val
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Lys Gly Leu Ala Val Lys Asn His Leu Gln Leu Gln Lys Arg Arg Lys
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Lys Lys Cys Gly Leu Pro Asn His Pro Glu Leu Ile Leu Leu Cys Asp
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Ser Cys Asp Ser Gly Tyr His Thr Ala Cys Leu Arg Pro Pro Leu Met
      565      570      575
Ile Ile Pro Asp Gly Glu Trp Phe Cys Pro Pro Cys Gln His Lys Leu
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Leu Cys Glu Lys Leu Glu Glu Gln Leu Gln Asp Leu Asp Val Ala Leu
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Lys Lys Lys Glu Arg Ala Glu Arg Arg Lys Glu Arg Leu Val Tyr Val

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Leu Leu Glu Arg Arg Ser Thr Arg Thr Arg Lys Cys Ile Ser Tyr Arg
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Phe Asp Glu Phe Asp Glu Ala Ile Asp Glu Ala Ile Glu Asp Asp Ile
        675                680                685
Lys Glu Ala Asp Gly Gly Gly Val Gly Arg Gly Lys Asp Ile Ser Thr
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Ile Thr Gly His Arg Gly Lys Asp Ile Ser Thr Ile Leu Asp Glu
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&lt;210&gt; 4765

&lt;211&gt; 1707

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4765

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<210> 4766

<211> 280

<212> PRT

<213> Homo sapiens

<400> 4766

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Pro	Glu	Pro	Arg	Arg	Thr	Glu	His	Arg	Ala	Pro	Ser	Ser	Thr	Trp	Arg
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Ala	Gly	Ala	His	Arg	Cys	Ser	Pro	Cys	Thr	Glu	Gln	Trp	Lys	Trp	His
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<212> DNA
<213> Homo sapiens
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 1260  
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<210> 4768

<211> 460

<212> PRT

<213> Homo sapiens

<400> 4768

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	20						25					30			
Asp	Phe	Ser	Glu	Ala	Asp	Leu	Val	Asp	Val	Ser	Ala	Tyr	Ser	Gly	Leu
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Gly	Glu	Asp	Ser	Ala	Gly	Ser	Ala	Leu	Glu	Glu	Asp	Asp	Glu	Asp	Asp
	50					55				60					
Glu	Gly	Asp	Gly	Glu	Pro	Pro	Tyr	Glu	Pro	Glu	Ser	Gly	Cys	Val	Glu
	65				70				75				80		
Ile	Pro	Gly	Leu	Ser	Glu	Glu	Glu	Asp	Pro	Ala	Pro	Ser	Arg	Lys	Ile
		85						90					95		
His	Phe	Ser	Thr	Ala	Pro	Ile	Gln	Val	Phe	Ser	Thr	Tyr	Ser	Asn	Glu
	100						105					110			
Asp	Tyr	Asp	Arg	Arg	Asn	Glu	Asp	Val	Asp	Pro	Met	Ala	Ala	Ser	Ala
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Glu	Tyr	Glu	Leu	Glu	Lys	Arg	Val	Glu	Arg	Leu	Glu	Leu	Phe	Pro	Val
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Glu	Leu	Glu	Lys	Asp	Ser	Glu	Gly	Leu	Gly	Ile	Ser	Ile	Ile	Gly	Met
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		165						170					175		
Thr	Val	Thr	Glu	Gly	Gly	Ala	Ala	His	Arg	Asp	Gly	Arg	Ile	Gln	Val
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Asn	Asp	Leu	Leu	Val	Glu	Val	Asp	Gly	Thr	Ser	Leu	Val	Gly	Val	Thr
	195						200					205			
Gln	Ser	Phe	Ala	Ala	Ser	Val	Leu	Arg	Asn	Thr	Lys	Gly	Arg	Val	Arg
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Phe	Met	Ile	Gly	Arg	Glu	Arg	Pro	Gly	Glu	Gln	Ser	Glu	Val	Ala	Gln
	225				230				235					240	
Leu	Ile	Gln	Gln	Thr	Leu	Glu	Gln	Glu	Arg	Trp	Gln	Arg	Glu	Met	Met
		245						250					255		
Glu	Gln	Arg	Tyr	Ala	Gln	Tyr	Gly	Glu	Asp	Asp	Glu	Glu	Thr	Gly	Glu
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Tyr	Ala	Thr	Asp	Glu	Asp	Glu	Glu	Leu	Ser	Pro	Thr	Phe	Pro	Gly	Gly

275	280	285
Glu Met Ala Ile Glu Val Phe	Glu Leu Ala Glu Asn Glu Asp Ala Leu	
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Ser Pro Val Asp Met Glu Pro Glu Lys Leu Val His Lys Phe Lys Glu		
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Leu Gln Ile Lys His Ala Val Thr Glu Ala Glu Ile Gln Gln Leu Lys		
325	330	335
Arg Lys Leu Gln Ser Leu Glu Gln Glu Lys Gly Arg Trp Arg Val Glu		
340	345	350
Lys Ala Gln Leu Glu Gln Ser Val Glu Glu Asn Lys Glu Arg Met Glu		
355	360	365
Lys Leu Glu Gly Tyr Trp Gly Glu Ala Gln Ser Leu Cys Gln Ala Val		
370	375	380
Asp Glu His Leu Arg Glu Thr Gln Ala Gln Tyr Gln Ala Leu Glu Arg		
385	390	395
Lys Tyr Ser Lys Ala Lys Arg Leu Ile Lys Asp Tyr Gln Gln Lys Glu		
405	410	415
Ile Glu Phe Leu Lys Lys Glu Thr Ala Gln Arg Arg Val Leu Glu Glu		
420	425	430
Ser Glu Leu Ala Arg Lys Glu Glu Met Asp Lys Leu Leu Asp Lys Ile		
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&lt;210&gt; 4769

&lt;211&gt; 1533

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4769

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720

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&lt;210&gt; 4770

&lt;211&gt; 237

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4770

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		20						25					30		
Leu	Ser	Val	Leu	Thr	Glu	Cys	Ala	Arg	Met	His	Arg	Pro	Ala	Arg	Lys
		35				40					45				
Phe	Leu	Lys	Ala	Gln	Val	Leu	Pro	Pro	Leu	Arg	Asp	Val	Arg	Thr	Arg
	50				55					60					
Pro	Glu	Val	Gly	Asp	Leu	Leu	Arg	Asn	Lys	Leu	Val	Arg	Leu	Met	Thr
65				70					75					80	
His	Leu	Asp	Thr	Asp	Val	Lys	Arg	Val	Ala	Ala	Glu	Phe	Leu	Phe	Val
			85					90					95		
Leu	Cys	Ser	Glu	Ser	Val	Pro	Arg	Phe	Ile	Lys	Tyr	Thr	Gly	Tyr	Gly
		100					105						110		
Asn	Ala	Ala	Gly	Leu	Leu	Ala	Ala	Arg	Gly	Leu	Met	Ala	Gly	Gly	Arg
		115				120						125			
Pro	Glu	Gly	Gln	Tyr	Ser	Glu	Asp	Glu	Asp	Thr	Asp	Thr	Asp	Glu	Tyr
	130					135					140				
Lys	Glu	Ala	Lys	Ala	Ser	Ile	Asn	Pro	Val	Thr	Gly	Arg	Val	Glu	Glu

145		150		155		160									
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Glu	Ala	Met	Lys	Leu	Val	Thr	Met	Phe	Asp	Lys	Leu	Ser	Ser	Pro	Thr
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		195					200					205			
Pro	Arg	Gly	His	Leu	Thr	Ser	Leu	Gln	Asp	Ala	Met	Cys	Glu	Thr	Met
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&lt;210&gt; 4771

&lt;211&gt; 2653

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4771

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1080

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 <212> PRT  
 <213> Homo sapiens

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 Lys Pro Asp Val Val Gln Asp Lys Glu Thr Glu Arg Asn Leu Gln Arg  
 50 55 60  
 Ile Ala Thr Arg Gly Val Val Gln Leu Phe Asn Ala Val Gln Lys His  
 65 70 75 80  
 Gln Lys Asn Val Asp Glu Lys Val Lys Glu Ala Gly Ser Ser Met Arg  
 85 90 95  
 Lys Arg Ala Lys Leu Ile Ser Thr Val Ser Lys Lys Asp Phe Ile Ser  
 100 105 110  
 Val Leu Arg Gly Met Asp Gly Ser Thr Asn Glu Thr Ala Ser Ser Arg  
 115 120 125  
 Lys Lys Pro Lys Ala Lys Gln Thr Glu Val Lys Ser Glu Glu Gly Pro  
 130 135 140  
 Gly Trp Thr Ile Leu Arg Asp Asp Phe Met Met Gly Ala Ser Met Lys  
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 180  
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<210> 4774  
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 <212> PRT

<213> Homo sapiens

<400> 4774

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Pro Asn Pro Ser Ser Leu Phe Pro Pro Ser Pro Gln Ala Arg Ala Ala
      35             40             45
Met Gly Trp Arg Val Leu Ala Trp Thr Gln His Pro Ile Ser Ser Ala
 50             55             60
Leu Ser Leu Asp Pro Ala Ser His Leu Leu Ser Ser Gln Gly Gly Gly
65             70             75             80
Ser Trp Glu Pro His Pro Gln Pro Leu His Ala
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<210> 4775

<211> 433

<212> DNA

<213> Homo sapiens

<400> 4775

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180
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<210> 4776

<211> 97

<212> PRT

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Leu Trp Leu His Cys Pro Pro Cys Tyr Phe Phe Glu Arg Ala Asn His
      35             40             45
Thr Ala Thr Ser Leu Pro Leu His Leu Leu Ser Leu Leu Leu Thr
 50             55             60
Ile His Ala Ala His Pro Val Thr Ser Phe Gln Phe Leu Leu Thr Phe

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65                      70                      75                      80  
Leu Lys Arg Pro Ser Leu Thr Ile Leu Phe Asn Ile Pro Pro Arg Leu  
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<212> DNA
<213> Homo sapiens
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120 a a a c g c g t a c a g g c a c t g c a g g a g a g a g t c g c t a c c t a c g g g c a g t c t t a g c c a a c g a g  
180 a c t g g a c t g g c t c g c t t g c t g a g c c g g c t g a g c g g c g t g g a c t g c g g c t g a c c a c c t g  
240 c t c t t c a g a a c t c g c c c g c c g g t g a c c a c g a c t a c g t c t g c c g g t g g g a a g c a g a a g  
300 c a g g a c c t g c t g g a a g a g g a c g a c t c g g c g g g a g a g t c t g t c t c c a t g t g g a c a a g g a t  
360 a a g g t g t c g g t g g a g t t c t g c t c g g c g t g c g c c c g g a a g g c g t c g t c t t c t c t a a a a a t t  
420 t t c t t t t t t a g g t g a t t t c t t c c t g c c a g g c t c c g t t g t a g g g g t t a c a g a a c a g t c g t  
480 t c c c g c c t a c a a c c t g t g g a t a c a g t g t t g g g g c a g a a g a g a c g g g a c a g a c t g c t g g  
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600 a g g g c t t c t g c t g t t t t t a t t t t t a a c a t g t t c a t a a t t a a a a g t a t t t t c c a g c a g t  
660 c c a a a g a t g t a a g t a t c t t a c a c a t a a a a t g t t t t a t t t g t t a t t t g g t t a t g a a a t  
720 g g a a t c c t t g t t c t t g c a c a c t g t a a a t g t t t t g t t g c t a g a t a a t a c g a t t t g a g a c c  
780 t g a a t t g g t c t t t g g t t t c a g t g c a t c a c a g c a t a t t t t g t a a a t c a t c t a c t a c t g c  
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900 c t a a g g g c a g g a g c a a g c c c c t c a c a a t g c a g c t g c a t g g t t t t t a g t g c c t a c t g a a t  
960 t a t a t a t a t a t a c a t a t a t a t a t a t a t a t a a a c c a a a a g t a g t t g g a a g a t t a t t  
1020 t g a a a t g a c t a a t t t g t g c t a t c t t t a t g a a a t a t g t t a a a t g t a g c t t t t t g a a a c a g  
1080 a a g c c t t g a a t t g a a a t t t a a c t a a t a c t t g a a c a t t t t g t a t a t a t t c t t g t a t a t a  
1140 a t t t t g t g c a g t a c c a a t g a c a a a a t a t g t g t c a t a a t a a a a c c a g g t t t g t t g a t c t  
1200 t t a g t t a t g g g c t c a a a g a a t t t a t t c a t c t c t a a c a t g a t a t t g g a a a a t a a t g g a t g  
1260

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&lt;210&gt; 4778

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4778

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&lt;211&gt; 1241

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&lt;400&gt; 4780

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<210> 4784

<211> 212

<212> PRT

<213> Homo sapiens

<400> 4784

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		20						25					30		
Ala	Leu	Asn	Leu	Ser	Leu	Cys	Lys	Gln	Ile	Thr	Asp	Ser	Ser	Leu	Gly
		35				40					45				
Arg	Ile	Ala	Gln	Tyr	Leu	Lys	Gly	Leu	Glu	Val	Leu	Glu	Leu	Gly	Gly
	50					55					60				
Cys	Ser	Asn	Ile	Thr	Asn	Thr	Gly	Leu	Leu	Leu	Ile	Ala	Trp	Gly	Leu
65				70					75				80		
Gln	Arg	Leu	Lys	Ser	Leu	Asn	Leu	Arg	Ser	Cys	Arg	His	Leu	Ser	Asp
			85					90					95		
Val	Gly	Ile	Gly	His	Leu	Ala	Gly	Met	Thr	Arg	Ser	Ala	Ala	Glu	Gly
		100						105					110		
Cys	Leu	Gly	Leu	Glu	Gln	Leu	Thr	Leu	Gln	Asp	Cys	Gln	Lys	Leu	Thr

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      115              120              125
Asp Leu Ser Leu Lys His Ile Ser Arg Gly Leu Thr Gly Leu Arg Leu
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Leu Asn Leu Ser Phe Cys Gly Gly Ile Ser Asp Ala Gly Leu Leu His
      145              150              155              160
Leu Ser His Met Gly Ser Leu Arg Ser Leu Asn Leu Arg Ser Cys Asp
      165              170              175
Asn Ile Ser Asp Thr Gly Ile Met His Leu Ala Met Gly Ser Leu Arg
      180              185              190
Leu Ser Gly Leu Asp Val Ser Phe Cys Asp Lys Val Gly Asp Gln Ser
      195              200              205
Leu Ala Tyr Ile
      210

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&lt;210&gt; 4785

&lt;211&gt; 3289

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4785

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<210> 4786

<211> 322

<212> PRT

<213> Homo sapiens

<400> 4786

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		20						25				30			
Val	Gly	Ala	Asp	Asn	Val	Gly	Ser	Lys	Gln	Met	Gln	Gln	Ile	Arg	Met
		35					40					45			
Ser	Leu	Arg	Gly	Lys	Ala	Val	Val	Leu	Met	Gly	Lys	Asn	Thr	Met	Met
		50				55					60				
Arg	Lys	Ala	Ile	Arg	Gly	His	Leu	Glu	Asn	Asn	Pro	Ala	Leu	Glu	Lys
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Leu	Leu	Pro	His	Ile	Arg	Gly	Asn	Val	Gly	Phe	Val	Phe	Thr	Lys	Glu
			85				90					95			
Asp	Leu	Thr	Glu	Ile	Arg	Asp	Met	Leu	Leu	Ala	Asn	Lys	Val	Pro	Ala
		100					105					110			
Ala	Ala	Arg	Ala	Gly	Ala	Ile	Ala	Pro	Cys	Glu	Val	Thr	Val	Pro	Ala
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Gln	Asn	Thr	Gly	Leu	Gly	Pro	Glu	Lys	Thr	Ser	Phe	Phe	Gln	Ala	Leu
		130				135					140				
Gly	Ile	Thr	Thr	Lys	Ile	Ser	Arg	Gly	Thr	Ile	Glu	Ile	Leu	Ser	Asp
		145			150				155			160			
Val	Gln	Leu	Ile	Lys	Thr	Gly	Asp	Lys	Val	Gly	Ala	Ser	Glu	Ala	Thr
			165					170				175			
Leu	Leu	Asn	Met	Leu	Asn	Ile	Ser	Pro	Phe	Ser	Phe	Gly	Leu	Val	Ile
		180					185					190			
Gln	Gln	Val	Phe	Asp	Asn	Gly	Ser	Ile	Tyr	Asn	Pro	Glu	Val	Leu	Asp

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210	215	220
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225	230	235
Pro His Ser Ile Ile Asn Gly Tyr Lys Arg Val Leu Ala Leu Ser Val		
245	250	255
Glu Thr Asp Tyr Thr Phe Pro Leu Ala Glu Lys Val Lys Ala Phe Leu		
260	265	270
Ala Asp Pro Ser Ala Phe Val Ala Ala Ala Pro Val Ala Ala Thr		
275	280	285
Thr Ala Ala Pro Ala Ala Ala Ala Ala Ala Pro Ala Lys Val Glu		
290	295	300
Ala Lys Glu Glu Ser Glu Glu Ser Asp Glu Asp Met Gly Phe Gly Leu		
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Phe Asp		320

&lt;210&gt; 4787

&lt;211&gt; 1258

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4787

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900

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<211> 197

<212> PRT

<213> Homo sapiens

<400> 4788

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			20					25					30		
Pro	Gly	Pro	Ser	Ser	Ser	Ile	Gly	Ser	Pro	Gln	Ala	Ser	Ser	Pro	Pro
			35				40					45			
Arg	Pro	Asn	His	Tyr	Leu	Leu	Ile	Asp	Thr	Gln	Gly	Val	Pro	Tyr	Thr
			50			55					60				
Val	Leu	Val	Asp	Glu	Glu	Ser	Gln	Arg	Glu	Pro	Gly	Ala	Ser	Gly	Ala
			65			70				75				80	
Pro	Gly	Gln	Lys	Lys	Cys	Tyr	Ser	Cys	Pro	Val	Cys	Ser	Arg	Val	Phe
			85					90					95		
Glu	Tyr	Met	Ser	Tyr	Leu	Gln	Arg	His	Ser	Ile	Thr	His	Ser	Glu	Val
			100					105					110		
Lys	Pro	Phe	Glu	Cys	Asp	Ile	Cys	Gly	Lys	Ala	Phe	Lys	Arg	Ala	Ser
		115				120						125			
His	Leu	Ala	Arg	His	His	Ser	Ile	His	Leu	Ala	Gly	Gly	Gly	Arg	Pro
		130				135					140				
His	Gly	Cys	Pro	Leu	Cys	Pro	Arg	Arg	Phe	Arg	Asp	Ala	Gly	Glu	Leu
		145			150				155					160	
Ala	Gln	His	Ser	Arg	Val	His	Ser	Gly	Glu	Arg	Pro	Phe	Gln	Cys	Pro
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<210> 4789

<211> 1515

<212> DNA

<213> Homo sapiens

<400> 4789

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&lt;210&gt; 4790

&lt;211&gt; 241

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4790

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 20           25           30
Pro Glu Glu Leu Gly His Phe Tyr Asp Tyr Pro Met Ala Leu Phe Ser
 35           40           45
Thr Phe Glu Leu Phe Leu Thr Ile Ile Asp Gly Pro Ala Asn Tyr Asn
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Val Asp Leu Pro Phe Met Tyr Ser Ile Thr Tyr Ala Ala Phe Ala Ile
 65           70           75           80
Ile Ala Thr Leu Leu Met Leu Asn Leu Leu Ile Ala Met Met Gly Asp
 85           90           95
Thr His Trp Arg Val Ala His Glu Arg Asp Glu Leu Trp Arg Ala Gln
100          105          110
Ile Val Ala Thr Thr Val Met Leu Glu Arg Lys Leu Pro Arg Cys Leu
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Trp Pro Arg Ser Gly Ile Cys Gly Arg Glu Tyr Gly Leu Gly Asp Arg
130          135          140
Trp Phe Leu Arg Val Glu Asp Arg Gln Asp Leu Asn Arg Gln Arg Ile
145          150          155          160
Gln Arg Tyr Ala Gln Ala Phe His Thr Arg Gly Ser Glu Asp Leu Asp
165          170          175
Lys Asp Ser Val Glu Lys Leu Glu Leu Gly Cys Pro Phe Ser Pro His
180          185          190
Leu Ser Leu Pro Met Pro Ser Val Ser Arg Ser Thr Ser Arg Ser Ser
195          200          205
Ala Asn Trp Glu Arg Leu Arg Gln Gly Thr Leu Arg Arg Asp Leu Arg
210          215          220
Gly Ile Ile Asn Arg Gly Leu Glu Asp Gly Glu Ser Trp Glu Tyr Gln
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&lt;210&gt; 4791

&lt;211&gt; 4481

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4791

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&lt;210&gt; 4792

&lt;211&gt; 179

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4792

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			20					25					30		
Asn	Lys	Asn	Lys	Gln	Trp	Gly	Lys	Gly	Thr	Leu	Phe	Asn	Lys	Trp	Cys
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Trp	Asp	Asn	Ser	Leu	Ala	Ile	Cys	Arg	Ile	Val	Lys	Leu	Asp	Pro	Tyr
	50				55					60					
Pro	Ser	Arg	Tyr	Thr	Lys	Ile	Asn	Ser	Arg	Trp	Ile	Lys	Asp	Leu	Asn
65				70						75				80	
Ile	Lys	Pro	Lys	Ser	Ile	Lys	Phe	Leu	Glu	Asp	Asn	Pro	Gly	Asn	Ala
			85					90					95		
Ile	Leu	Asp	Ile	Ser	Ala	Gly	Lys	Asp	Leu	Met	Met	Asn	Thr	Xaa	Lys
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Ala	Ile	Thr	Thr	Lys	Thr	Lys	Ile	Asp	Lys	Trp	Asp	Leu	Ile	Lys	Leu
		115				120						125			
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Pro Thr Glu Trp Glu Lys Val Leu Ala Trp Glu Lys Ile Phe Ser Asn					
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Tyr Ala Ser Asp Lys Gly Leu Ile Ser Ser Ile Tyr Lys Glu Leu Lys					
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Gln Ile Tyr					

&lt;210&gt; 4793

&lt;211&gt; 1242

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4793

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<210> 4794

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4794

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		20					25					30			
Asp	Thr	Pro	Glu	Ala	Lys	Cys	Ser	Met	Gln	Gln	Pro	Gly	Ile	Gln	Ala
	35					40					45				
Thr	Ser	Ser	Val	Ala	Gly	Arg	Gln	Pro	Gly	Ala	Phe	Ser	Glu	Glu	Lys
	50				55					60					
Gly	Pro	Val	Ile	Ile	Pro	Gln	Met	Leu	Leu	Glu	Leu	Trp	Ala	Gln	Gly
65			70					75					80		
Asn	Arg	Pro	Ile	Met	Val	Leu	Pro	Glu	Gly	Leu	His	Leu	Leu	Tyr	Thr
		85						90				95			
Arg	His	Lys	Ile	Arg	Leu	Pro	Arg	Glu	Glu	Pro	Ser	Asp	Ser	Val	Gln
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Arg	Ala	His	Val	Thr	Ile										
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<210> 4795

<211> 2117

<212> DNA

<213> Homo sapiens

<400> 4795

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&lt;210&gt; 4796

&lt;211&gt; 541

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4796

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 Gly Ser Ser Glu Leu Arg Ala Gln Ala Cys Thr Ala His Ser Ala Gly  
 50 55 60  
 Val Pro Gly Leu Ser Ile Pro Thr Ser Ser Trp Leu Pro Leu Met Lys  
 65 70 75 80  
 Gly Pro Pro Glu Val Ala Gln Ser Asn Ile Gln Thr Gln Pro Val Asn  
 85 90 95  
 Arg Glu Met Asp Ala Ala Gly Phe Asp Phe Ser Leu Pro Cys Thr Gln  
 100 105 110  
 Lys Leu Thr Gln Asn Gly Thr Arg Ser Gln Trp Gly Leu Ser Leu Pro  
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 Ala Leu Met Thr Glu Gly Ser Val Lys His Gly Leu Gly Asp Val Ser  
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 145 150 155 160  
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 Pro Pro Gln Asp Lys Gln Pro Ser Ile Met Lys Asp Gln His Cys Met  
 180 185 190  
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 Pro Tyr Gly Phe Leu Ala Trp Gly His Tyr Ile Ser Ala Met Asp Pro  
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 Cys Thr Leu Leu Pro Leu Ala Gly Pro His Ala Gln Ala Pro Gln Gly  
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 Val Ala Pro Lys Val Thr Thr Arg Gly Leu Gly Pro Ala Gly Ala Ser  
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&lt;210&gt; 4797

&lt;211&gt; 2848

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4797

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 2848

<210> 4798

<211> 401

<212> PRT

<213> Homo sapiens

<400> 4798

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Phe	Met	Tyr	Ile	Arg	Tyr	Thr	Gln	Pro	Pro	Thr	Asp	Leu	Trp	Asp	Trp
		20					25					30			
Phe	Glu	Ser	Phe	Leu	Asp	Asp	Glu	Glu	Asp	Leu	Asp	Val	Lys	Ala	Gly
		35					40					45			
Gly	Gly	Cys	Val	Met	Thr	Ile	Gly	Glu	Met	Leu	Arg	Ser	Phe	Leu	Thr
	50					55				60					
Lys	Leu	Glu	Trp	Phe	Ser	Thr	Leu	Phe	Pro	Arg	Ile	Pro	Val	Pro	Val
65				70					75					80	
Gln	Lys	Asn	Ile	Asp	Gln	Gln	Ile	Lys	Thr	Arg	Pro	Arg	Lys	Ile	Lys
			85					90						95	
Lys	Asp	Gly	Lys	Glu	Gly	Ala	Glu	Glu	Ile	Asp	Arg	His	Val	Glu	Arg
			100				105						110		
Arg	Arg	Ser	Arg	Ser	Pro	Arg	Arg	Ser	Leu	Ser	Pro	Arg	Arg	Ser	Pro
		115				120					125				
Arg	Arg	Ser	Arg	Ser	Arg	Ser	His	His	Arg	Glu	Gly	His	Gly	Ser	Ser
	130				135						140				
Ser	Phe	Asp	Arg	Glu	Leu	Glu	Arg	Glu	Lys	Glu	Arg	Gln	Arg	Leu	Glu
145				150				155						160	
Arg	Glu	Ala	Lys	Glu	Arg	Glu	Lys	Glu	Arg	Arg	Ser	Arg	Ser	Ile	
			165					170						175	
Asp	Arg	Gly	Leu	Glu	Arg	Arg	Arg	Ser	Arg	Ser	Arg	Glu	Arg	His	Arg
			180				185					190			
Ser	Arg	Ser	Arg	Ser	Arg	Asp	Arg	Lys	Gly	Asp	Arg	Arg	Asp	Arg	Asp
	195				200						205				
Arg	Glu	Arg	Glu	Lys	Glu	Asn	Glu	Arg	Gly	Arg	Arg	Arg	Asp	Arg	Asp
	210				215						220				
Tyr	Asp	Lys	Glu	Arg	Gly	Asn	Glu	Arg	Glu	Lys	Glu	Arg	Glu	Arg	Ser
225				230						235				240	
Arg	Glu	Arg	Ser	Lys	Glu	Gln	Arg	Ser	Arg	Gly	Glu	Val	Glu	Glu	Lys
			245						250					255	
Lys	His	Lys	Glu	Asp	Lys	Asp	Asp	Arg	Arg	His	Arg	Asp	Asp	Lys	Arg
		260					265					270			
Asp	Ser	Lys	Lys	Glu	Lys	Lys	His	Ser	Arg	Ser	Arg	Ser	Arg	Glu	Arg

275	280	285
Lys His Arg Ser Arg Ser Arg Ser Arg Asn Ala Gly Lys Arg Ser Arg		
290	295	300
Ser Arg Ser Lys Glu Lys Ser Ser Lys His Lys Asn Glu Ser Lys Glu		
305	310	315
Lys Ser Asn Lys Arg Ser Arg Ser Gly Ser Gln Gly Arg Thr Asp Ser		
325	330	335
Val Glu Lys Ser Lys Lys Arg Glu His Ser Pro Ser Lys Glu Lys Ser		
340	345	350
Arg Lys Arg Ser Arg Ser Lys Glu Arg Ser His Lys Arg Asp His Ser		
355	360	365
Asp Ser Lys Asp Gln Ser Asp Lys His Asp Arg Arg Arg Ser Gln Ser		
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Ile Glu Gln Glu Ser Gln Glu Lys Gln His Lys Asn Lys Asp Glu Thr		
385	390	395
Val		400

<210> 4799  
 <211> 358  
 <212> DNA  
 <213> Homo sapiens

<400> 4799  
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 120  
 ctggatcagc ctcacaccc agtggctcaa cctcatcttc aagtggtag acagagaagc  
 180  
 cctccggcat cctggteccc acccccagg gccctgagtc atgtgtttct ttttggagac  
 240  
 aggccctttt ggtgggtcca tgagtctggt tactacagcc aggtccagc ccaggttcac  
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<210> 4800  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 4800  
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 Ser Gln Asp Pro Leu Ser Val Leu Leu Pro Arg Gly Leu Leu Arg Leu  
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 Pro Pro Cys Gly His Arg Gly Ala Leu Asp Gln Pro His His Arg Val  
 35 40 45  
 Ala Gln Pro His Leu Gln Val Arg Gln Arg Ser Pro Pro Ala Ser  
 50 55 60  
 Trp Ser Pro Pro Pro Arg Ala Leu Ser His Val Phe Leu Phe Gly Asp  
 65 70 75 80  
 Arg Pro Phe Trp Trp Val His Glu Ser Gly Tyr Tyr Ser Gln Ala Pro

	85		90		95										
Ala	Gln	Val	His	Gln	Phe	Pro	Ser	Ser	Cys	Glu	Thr	Gly	Pro	Gly	Ser
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Pro	Ser	Gly	His	Cys	Met	Ile									
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&lt;210&gt; 4801

&lt;211&gt; 1447

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4801

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120
atagccgagg cgctacagaa ccagctagcc tggctggaga acgtgtggct ctggatcacc
180
tttctgggcg atcccaagat cctctttctg ttctacttcc ccgcggccta ctacgcctcc
240
cgccgtgtgg gcatcgcggt gctctggatc agcctcatca ccgagtggct caacctcatc
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360
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420
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480
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660
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720
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780
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900
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960
gccatggggc tgctggggcc cctggactgg ctggggccacc cccctcagat cagcctcttc
1020
tacattttca atttccctca gtacaccctc tggccatgcc tagtccctggc cctcgtgccc
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1140
gtgtgcctcc ctttcccttc cctcccacaa agccaacact ctgtgaccac cacactccag
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gaggcagccc catcccttc cagcccctaa gtaggccttc cctccctaa atctgcttcc
1260

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gcaccacctg gtcttagccc caaagatggg cttctctctt cccagataag ttggtcctcc  
 1320  
 ctctgccttt cctctcaagc ccccaaagag caaaggcaac agcaagacca gcgggttctt  
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 1440  
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 1447

<210> 4802

<211> 377

<212> PRT

<213> Homo sapiens

<400> 4802

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		20						25				30			
Ser	Thr	Leu	Gly	Ala	Gly	Ile	Val	Ile	Ala	Glu	Ala	Leu	Gln	Asn	Gln
		35					40					45			
Leu	Ala	Trp	Leu	Glu	Asn	Val	Trp	Leu	Trp	Ile	Thr	Phe	Leu	Gly	Asp
	50					55					60				
Pro	Lys	Ile	Leu	Phe	Leu	Phe	Tyr	Phe	Pro	Ala	Ala	Tyr	Tyr	Ala	Ser
65				70					75					80	
Arg	Arg	Val	Gly	Ile	Ala	Val	Leu	Trp	Ile	Ser	Leu	Ile	Thr	Glu	Trp
			85						90					95	
Leu	Asn	Leu	Ile	Phe	Lys	Trp	Phe	Leu	Phe	Gly	Asp	Arg	Pro	Phe	Trp
		100						105					110		
Trp	Val	His	Glu	Ser	Gly	Tyr	Tyr	Ser	Gln	Ala	Pro	Ala	Gln	Val	His
		115					120					125			
Gln	Phe	Pro	Ser	Ser	Cys	Glu	Thr	Gly	Pro	Gly	Ser	Pro	Ser	Gly	His
		130					135				140				
Cys	Met	Ile	Thr	Gly	Ala	Ala	Leu	Trp	Pro	Ile	Met	Thr	Ala	Leu	Ser
145				150					155					160	
Ser	Gln	Val	Ala	Thr	Arg	Ala	Arg	Ser	Arg	Trp	Val	Arg	Val	Met	Pro
			165						170					175	
Ser	Leu	Ala	Tyr	Cys	Thr	Phe	Leu	Leu	Ala	Val	Gly	Leu	Ser	Arg	Ile
		180						185					190		
Phe	Ile	Leu	Ala	His	Phe	Pro	His	Gln	Val	Leu	Ala	Gly	Leu	Ile	Thr
		195					200					205			
Gly	Ala	Val	Leu	Gly	Trp	Leu	Met	Thr	Xaa	Pro	Glu	Cys	Leu	Trp	Ser
		210					215					220			
Gly	Ser	Xaa	Ser	Phe	Tyr	Gly	Leu	Thr	Ala	Leu	Ala	Leu	Met	Leu	Gly
225				230					235					240	
Thr	Ser	Leu	Ile	Tyr	Trp	Thr	Leu	Phe	Thr	Leu	Gly	Leu	Asp	Leu	Ser
			245						250					255	
Trp	Ser	Ile	Ser	Leu	Ala	Phe	Lys	Trp	Cys	Glu	Arg	Pro	Glu	Trp	Ile
		260						265					270		
His	Val	Asp	Ser	Arg	Pro	Phe	Ala	Ser	Leu	Ser	Arg	Asp	Ser	Gly	Ala
		275					280					285			
Ala	Leu	Gly	Leu	Gly	Ile	Ala	Leu	His	Ser	Pro	Cys	Tyr	Ala	Gln	Val
		290					295				300				
Arg	Arg	Ala	Gln	Leu	Gly	Asn	Gly	Gln	Lys	Ile	Ala	Cys	Leu	Val	Leu



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305          310          315          320
Ala Met Gly Leu Leu Gly Pro Leu Asp Trp Leu Gly His Pro Pro Gln
          325          330          335
Ile Ser Leu Phe Tyr Ile Phe Asn Phe Leu Lys Tyr Thr Leu Trp Pro
          340          345          350
Cys Leu Val Leu Ala Leu Val Pro Trp Ala Val His Met Phe Ser Ala
          355          360          365
Gln Glu Ala Pro Pro Ile His Ser Ser
          370          375

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<210> 4803  
 <211> 564  
 <212> DNA  
 <213> Homo sapiens

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<400> 4803
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ataaaaaaag agagagagtg cctgtgtgca catgctgccc tgtacctagc cacatgactt
120
ccaaaacctg ctaatgcctg atttccatta cgtgctactc ctcaaatggc agcggcttct
180
gaatattaca gagatggtgt gctgtttgct tttctctttt gttgtagcat aaaactgttc
240
atttagctt agtgacattt gtcaagaata gcaacctttt tgcttccaag ggacttgaag
300
gaagttaa at ttagatgctt tctctctctt ttattttgtg gaggtatttc ctgttcagta
360
gcaaatcagt tatagaatat attagcattg ttatatatta aactaatgac taatcatttc
420
agctttattc atactgttgc attttatatt tcacaggag caatagaaaa agtgaaagaa
480
agtgacaaac tagttgcaac aagtaaaatc accctacaag acaaacagaa catggtgaag
540
agagtcagca tcatgtctta cgcg
564

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<210> 4804  
 <211> 53  
 <212> PRT  
 <213> Homo sapiens

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<400> 4804
Met Thr Asn His Phe Ser Phe Ile His Thr Val Ala Phe Tyr Ile Ser
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Gln Gly Ala Ile Glu Lys Val Lys Glu Ser Asp Lys Leu Val Ala Thr
20     25     30
Ser Lys Ile Thr Leu Gln Asp Lys Gln Asn Met Val Lys Arg Val Ser
35     40     45
Ile Met Ser Tyr Ala
50

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<210> 4805  
 <211> 1619

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4805

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cggagtacca ttcttttcaa tgcctacaaa aaggagatat ttaccaccaa caatggctac  
120  
aaatccatgc agaaaaaact tcggagtaat tggaagattc agagcttaaa agatgaaatc  
180  
acatctgaga agttaaatgg agtaaaactg tggattacag ctgggccaaag ggaaaaattt  
240  
actgcagctg agtttgaaat cctgaagaaa tatcttgaca ctgggtggga tgtccttggtg  
300  
atgctagggg aagggtggaga atccagattt gacaccaata ttaacttttt actagaagaa  
360  
tatggaatca tggttaataa tgatgctgtg gttagaaatg tatacacaa atatttccat  
420  
cctaaagaag ctctagtctt cagtggagtc ttgaacaggg aaattagccg agctgcagga  
480  
aaggctgtgc tggcgatcat tgatgaggaa agcagtggaa acaatgccca ggctctcacc  
540  
tttgtgtatc cttttggtgc cacattgagt gtcatgaaac cagcagtggc ggttctgtct  
600  
acaggttctg tctgttccc acttaacaga cccattttgg ctttctatca ctcaaagaac  
660  
caagggtgga agctggcagt gcttggttca tgtcacatgt tcagtgatca atatttggac  
720  
aaagaagaaa acagcaaaat catggatgtt gttgttttcc agtggctcac gacaggagac  
780  
atccacctaa accagattga tgctgaggac ccagagattt ctgactacat gatgtgccc  
840  
tacacagcca ccctatcaaa gcggaatcga gagtgtctcc aggagagtga tgagatcca  
900  
agggaactta ccacctctt cgacctgtcc atcttccagc tggataccac ctcttccac  
960  
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1020  
cctcagtttg agacgccgt gccaacctt cagcctgcgg ttttctctcc cagtttccgg  
1080  
gagttaccac ctctctctt ggagctatct gatttagatg aaacgttctc ctctgagaag  
1140  
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1200  
aagtgtggtg atattcttgg agtaaccagt aaactaccaa aggaccaaca ggatgccaaa  
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catatccttg agcacgtctt ctccaagtg gtggagtcca agaaattgaa ccaggaacat  
1320  
gacatcgata caagtgaac agcattccag aacaatttct gaagaccatg cctcttgaag  
1380  
cttttctgc ctctgatct tctcttctga aactatttct aaattgtttt tcaactcctt  
1440  
atcaaaattg ttatacact ctttctcca tgagctctgg aaggatatg catcttctgt  
1500

aatactcaga taggtataag atttttcaca aaatccttat gtaagataca ttccattttt  
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<210> 4806

<211> 438

<212> PRT

<213> Homo sapiens

<400> 4806

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 Glu Ile Phe Thr Thr Asn Asn Gly Tyr Lys Ser Met Gln Lys Lys Leu  
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 Arg Ser Asn Trp Lys Ile Gln Ser Leu Lys Asp Glu Ile Thr Ser Glu  
 35 40 45  
 Lys Leu Asn Gly Val Lys Leu Trp Ile Thr Ala Gly Pro Arg Glu Lys  
 50 55 60  
 Phe Thr Ala Ala Glu Phe Glu Ile Leu Lys Lys Tyr Leu Asp Thr Gly  
 65 70 75 80  
 Gly Asp Val Leu Val Met Leu Gly Glu Gly Gly Glu Ser Arg Phe Asp  
 85 90 95  
 Thr Asn Ile Asn Phe Leu Leu Glu Glu Tyr Gly Ile Met Val Asn Asn  
 100 105 110  
 Asp Ala Val Val Arg Asn Val Tyr His Lys Tyr Phe His Pro Lys Glu  
 115 120 125  
 Ala Leu Val Ser Ser Gly Val Leu Asn Arg Glu Ile Ser Arg Ala Ala  
 130 135 140  
 Gly Lys Ala Val Leu Ala Ile Ile Asp Glu Glu Ser Ser Gly Asn Asn  
 145 150 155 160  
 Ala Gln Ala Leu Thr Phe Val Tyr Pro Phe Gly Ala Thr Leu Ser Val  
 165 170 175  
 Met Lys Pro Ala Val Ala Val Leu Ser Thr Gly Ser Val Cys Phe Pro  
 180 185 190  
 Leu Asn Arg Pro Ile Leu Ala Phe Tyr His Ser Lys Asn Gln Gly Gly  
 195 200 205  
 Lys Leu Ala Val Leu Gly Ser Cys His Met Phe Ser Asp Gln Tyr Leu  
 210 215 220  
 Asp Lys Glu Glu Asn Ser Lys Ile Met Asp Val Val Val Phe Gln Trp  
 225 230 235 240  
 Leu Thr Thr Gly Asp Ile His Leu Asn Gln Ile Asp Ala Glu Asp Pro  
 245 250 255  
 Glu Ile Ser Asp Tyr Met Met Leu Pro Tyr Thr Ala Thr Leu Ser Lys  
 260 265 270  
 Arg Asn Arg Glu Cys Leu Gln Glu Ser Asp Glu Ile Pro Arg Asp Phe  
 275 280 285  
 Thr Thr Leu Phe Asp Leu Ser Ile Phe Gln Leu Asp Thr Thr Ser Phe  
 290 295 300  
 His Ser Val Ile Glu Ala His Glu Gln Leu Asn Val Lys His Glu Pro  
 305 310 315 320  
 Leu Gln Leu Ile Gln Pro Gln Phe Glu Thr Pro Leu Pro Thr Leu Gln  
 325 330 335  
 Pro Ala Val Phe Pro Pro Ser Phe Arg Glu Leu Pro Pro Pro Pro Leu

	340		345		350										
Glu	Leu	Phe	Asp	Leu	Asp	Glu	Thr	Phe	Ser	Ser	Glu	Lys	Ala	Arg	Leu
	355					360					365				
Ala	Gln	Ile	Thr	Asn	Lys	Cys	Thr	Glu	Glu	Asp	Leu	Glu	Phe	Tyr	Val
	370					375					380				
Arg	Lys	Cys	Gly	Asp	Ile	Leu	Gly	Val	Thr	Ser	Lys	Leu	Pro	Lys	Asp
385					390					395					400
Gln	Gln	Asp	Ala	Lys	His	Ile	Leu	Glu	His	Val	Phe	Phe	Gln	Val	Val
			405						410					415	
Glu	Phe	Lys	Lys	Leu	Asn	Gln	Glu	His	Asp	Ile	Asp	Thr	Ser	Glu	Thr
			420						425					430	
Ala	Phe	Gln	Asn	Asn	Phe										
			435												

&lt;210&gt; 4807

&lt;211&gt; 1177

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4807

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300
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420
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480
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<210> 4808
<211> 313
<212> PRT
<213> Homo sapiens
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3988

<210> 4809  
 <211> 999  
 <212> DNA  
 <213> Homo sapiens

<400> 4809  
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 120  
 tcctgtaaga gactgttccc tcctcccaca cttccttgag aagcacttgc ccctccagga  
 180  
 taacagcatc actgagcctg gggaacagac agtccttagt ccaagccctg gaggtaagaa  
 240  
 aggaggggccc ggccaggatg ctcagtgtgg tcagcatagg ccaggcccct gctaccttga  
 300  
 ccctgagggc cagagcacag gcggaactcg gacatagggc cacagggtgac tgcttaatga  
 360  
 caaccatgct agtcctctggc aatgaggggt caggagcgtg tgtgaataat ggggcacctg  
 420  
 acccagggct ggggtacaga ggggtgggggt taaaaatggg tcatctgtcg caggacacct  
 480  
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 660  
 agccagccat cattgtcctt gtcttctctc ccgagaaagt cgaggctcctg gcagggtca  
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 ccaactacaa ggtagacccc gggagggcag ggatgggtgca ctgtgttcag ggtgcatttg  
 960  
 ccgccagtgg agggaggcac ccaggccact cccgccggc  
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<210> 4810  
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 <212> PRT  
 <213> Homo sapiens

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 Ser Gln Pro Gly Cys His Ser Gly Leu Leu Thr Asn Thr Pro Ala Ala  
 35 40 45  
 Leu Val Pro Ala His Ala Arg Gln Arg Ser Gln Pro Ser Leu Leu Leu

50		55		60
Ser Ser Ser Pro Arg Lys Ser Arg Ser Trp Gln Gly Ser Gly Pro Met				
65		70		75
Trp Pro Gly Pro Gly Tyr Phe Pro Asp Leu Thr Ser Pro Thr Ala Gln				80
	85		90	
Pro Leu Gln Leu Leu Gly Ala Leu His Gly Cys Ser Phe Pro Pro Pro				95
	100		105	
Leu Pro Ser Gly Gln Pro Cys Pro				110
	115		120	

&lt;210&gt; 4811

&lt;211&gt; 3207

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4811

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<210> 4812

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4812

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Leu	Arg	Thr	Leu	Leu	Glu	Glu	Ala	Val	Pro	Leu	Ser	Cys	Ala	Leu	Pro
			20					25					30		
Lys	Val	Thr	Leu	Pro	Asn	Tyr	Asp	Asn	Val	Pro	Gly	Asn	Leu	Met	Leu
		35				40						45			
Ser	Ala	Leu	Gly	Leu	Arg	Leu	Gly	Asp	Arg	Val	Leu	Leu	Asp	Gly	Gln
	50				55					60					
Lys	Thr	Gly	Thr	Leu	Arg	Phe	Cys	Gly	Thr	Thr	Glu	Phe	Ala	Ser	Gly
65				70					75					80	
Ser	Trp	Val	Gly	Val	Glu	Leu	Asp	Glu	Pro	Glu	Gly	Lys	Asn	Asp	Gly
		85						90					95		
Ser	Val	Gly	Gly	Val	Arg	Tyr	Phe	Ile	Cys	Pro	Pro	Lys	Gln	Gly	Leu
		100						105					110		
Phe	Ala	Ser	Val	Ser	Lys	Ile	Ser	Lys	Ala	Val	Asp	Ala	Pro	Pro	Ser
	115					120					125				
Ser	Val	Thr	Ser	Thr	Pro	Gly	Pro	Pro	Arg	Met	Asp	Phe	Ser	Arg	Val
	130				135					140					
Thr	Gly	Lys	Gly	Arg	Arg	Glu	His	Lys	Gly	Lys	Lys	Lys	Thr	Pro	Ser
145				150						155				160	
Ser	Pro	Ser	Leu	Gly	Ser	Leu	Gln	Gln	Arg	Asp	Gly	Ala	Lys	Ala	Glu
			165					170					175		
Val	Gly	Asp	Gln	Val	Leu	Val	Ala	Gly	Gln	Lys	Gln	Gly	Ile	Val	Arg
		180						185					190		
Phe	Tyr	Gly	Lys	Thr	Asp	Phe	Ala	Pro	Gly	Tyr	Trp	Tyr	Gly	Ile	Glu
	195					200						205			
Leu	Asp	Gln	Pro	Thr	Gly	Lys	His	Asp	Gly	Ser	Val	Phe	Gly	Val	Arg
	210				215						220				
Tyr	Phe	Thr	Cys	Pro	Pro	Arg	His	Gly	Val	Phe	Ala	Pro	Ala	Ser	Arg
225				230					235					240	
Ile	Gln	Arg	Ile	Gly	Gly	Ser	Thr	Asp	Ser	Pro	Gly	Asp	Ser	Val	Gly

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                245                250                255
Ala Lys Lys Val His Gln Val Thr Met Thr Gln Pro Lys Arg Thr Phe
                260                265                270
Thr Thr Val Arg Thr Pro Lys Asp Ile Ala Ser Glu Asn Ser Ile Ser
                275                280                285
Arg Leu Leu Phe Cys Cys Trp Phe Pro Trp Met Leu Arg Ala Glu Met
                290                295                300
Gln Ser
305

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<210> 4813
<211> 400
<212> DNA
<213> Homo sapiens

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<400> 4813
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120
agtgactgtg ggtgggaaag gaggccgtgg tggctgcagc ttctctctgc aaacctccac
180
ctcgccacaca gggcttggtt ttctctccag ctgtccagga aaccaccatc atgattgtta
240
aacacagatt tgaacattca cgaagaaact tccagggtga gccaaacctt cttctctccc
300
actgcacctc caagcagcct tcctgaaagg gaaaagagta cagacctgcc ctctggggac
360
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400

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<210> 4814
<211> 125
<212> PRT
<213> Homo sapiens

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<400> 4814
Met Ala Gly His Arg Gly Pro Gln Arg Ala Gly Leu Tyr Ser Phe Pro
1      5      10      15
Phe Gln Glu Gly Cys Leu Glu Val Gln Trp Gly Gly Arg Gly Phe Gly
20     25     30
Ser Pro Trp Lys Phe Leu Arg Glu Cys Ser Asn Leu Cys Leu Thr Ile
35     40     45
Met Met Val Val Ser Trp Thr Ala Gly Gly Lys Ala Lys Pro Cys Gly
50     55     60
Arg Gly Gly Gly Leu Gln Arg Lys Ala Ala Ala Thr Thr Ala Ser Phe
65     70     75     80
Pro Thr His Ser His Trp Gln Thr Gly Gly Gln Val Gln Ser Pro Lys
85     90     95
Glu Thr Ala Ala Cys Ala Gly His Pro Pro Gly Thr Ala Phe Ser Leu
100    105    110
Ile Leu Pro Val Pro Pro Thr Cys Trp Val Ser Val Ala
115    120    125

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<210> 4815  
 <211> 528  
 <212> DNA  
 <213> Homo sapiens

<400> 4815  
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 120  
 agcatgtcta caagctctgt acgcaaacga tctgaagggtg aagagaagac attaacaggg  
 180  
 gacgtgaaaa ccagtcctcc acgaactgca ccaaagaaac agctaccttc tattcccaaa  
 240  
 aatgctttgc ccataactaa gcctacatca cctgccccag cagcacagtc aacaaatggc  
 300  
 acccatgcct cttacggacc cttctacctg gaatattcac tccttgacaga atttaccttg  
 360  
 gttgtgaagc agaagctacc aggcgtctat gtgcagccat cttatcgctc tgcattaatg  
 420  
 tagtttgag taatattcat acggcatgga ctttaccag atggcgtatt taagtttaca  
 480  
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 528

<210> 4816  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 4816  
 Met Asn Pro Phe Trp Ser Met Ser Thr Ser Ser Val Arg Lys Arg Ser  
 1 5 10 15  
 Glu Gly Glu Glu Lys Thr Leu Thr Gly Asp Val Lys Thr Ser Pro Pro  
 20 25 30  
 Arg Thr Ala Pro Lys Lys Gln Leu Pro Ser Ile Pro Lys Asn Ala Leu  
 35 40 45  
 Pro Ile Thr Lys Pro Thr Ser Pro Ala Pro Ala Ala Gln Ser Thr Asn  
 50 55 60  
 Gly Thr His Ala Ser Tyr Gly Pro Phe Tyr Leu Glu Tyr Ser Leu Leu  
 65 70 75 80  
 Ala Glu Phe Thr Leu Val Val Lys Gln Lys Leu Pro Gly Val Tyr Val  
 85 90 95  
 Gln Pro Ser Tyr Arg Ser Ala Leu Met  
 100 105

<210> 4817  
 <211> 1106  
 <212> DNA  
 <213> Homo sapiens

<400> 4817  
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 120  
 aagttcgtgg agaacattcg gcagctcggc atcatcgtca gtgacttcca gcccagcagc  
 180  
 caggccgggc tcaacaaaaa gctgaatttt attgttactg gcttacagga tattgacaag  
 240  
 tgcagacagc agcttcatga tattactgta ccgttagaag tttttgaata tatagatcaa  
 300  
 ggtcgaaatc cccagctcta caccaaagag tgcttgaga gggctctagc taaaaatgag  
 360  
 caagttaaag gcaagatcga caccatgaag aaatttaaaa gcctgttgat tcaagaactt  
 420  
 tctaaagtat ttccggaaga catggctaag tatcgaagca tccgggggga ggatcacccg  
 480  
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 960  
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 1080  
 aaaaaaaaaa aaaaaaaaaa aaaaaa  
 1106

&lt;210&gt; 4818

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4818

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Glu	Asn	Ile	Arg	Gln	Leu	Gly	Ile	Ile	Val	Ser	Asp	Phe	Gln	Pro	Ser
			20							25				30	
Ser	Gln	Ala	Gly	Leu	Asn	Gln	Lys	Leu	Asn	Phe	Ile	Val	Thr	Gly	Leu
			35							40				45	
Gln	Asp	Ile	Asp	Lys	Cys	Arg	Gln	Gln	Leu	His	Asp	Ile	Thr	Val	Pro
			50							55				60	
Leu	Glu	Val	Phe	Glu	Tyr	Ile	Asp	Gln	Gly	Arg	Asn	Pro	Gln	Leu	Tyr
65					70					75				80	
Thr	Lys	Glu	Cys	Leu	Glu	Arg	Ala	Leu	Ala	Lys	Asn	Glu	Gln	Val	Lys

	85		90		95										
Gly	Lys	Ile	Asp	Thr	Met	Lys	Lys	Phe	Lys	Ser	Leu	Leu	Ile	Gln	Glu
	100						105					110			
Leu	Ser	Lys	Val	Phe	Pro	Glu	Asp	Met	Ala	Lys	Tyr	Arg	Ser	Ile	Arg
	115						120					125			
Gly	Glu	Asp	His	Pro	Pro	Ser									
	130					135									

&lt;210&gt; 4819

&lt;211&gt; 1655

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4819

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720
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1200

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<210> 4820

<211> 551

<212> PRT

<213> Homo sapiens

<400> 4820

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Met	Glu	Ala	Gly	Gly	Leu	Pro	Leu	Glu	Leu	Trp	Arg	Met	Ile	Leu	Ala
			20					25					30		
Tyr	Leu	His	Leu	Pro	Asp	Leu	Gly	Arg	Cys	Ser	Leu	Val	Cys	Arg	Ala
		35					40					45			
Trp	Tyr	Glu	Leu	Ile	Leu	Ser	Leu	Asp	Ser	Thr	Arg	Trp	Arg	Gln	Leu
	50					55					60				
Cys	Leu	Gly	Cys	Thr	Glu	Cys	Arg	His	Pro	Asn	Trp	Pro	Asn	Gln	Pro
65					70					75				80	
Asp	Val	Glu	Pro	Glu	Ser	Trp	Arg	Glu	Ala	Phe	Lys	Gln	His	Tyr	Leu
			85						90					95	
Ala	Ser	Lys	Thr	Trp	Thr	Lys	Asn	Ala	Leu	Asp	Leu	Glu	Ser	Ser	Ile
			100					105					110		
Cys	Phe	Ser	Leu	Phe	Arg	Arg	Arg	Glu	Arg	Arg	Thr	Leu	Ser	Val	
		115					120				125				
Gly	Pro	Gly	Arg	Glu	Phe	Asp	Ser	Leu	Gly	Ser	Ala	Leu	Ala	Met	Ala
	130					135					140				
Ser	Leu	Tyr	Asp	Arg	Ile	Val	Leu	Phe	Pro	Gly	Val	Tyr	Glu	Glu	Gln
145					150					155				160	
Gly	Glu	Ile	Ile	Leu	Lys	Val	Pro	Val	Glu	Ile	Val	Gly	Gln	Gly	Lys
				165					170					175	
Leu	Gly	Glu	Val	Ala	Leu	Leu	Ala	Ser	Ile	Asp	Gln	His	Cys	Ser	Thr
			180					185					190		
Thr	Arg	Leu	Cys	Asn	Leu	Val	Phe	Thr	Pro	Ala	Trp	Phe	Ser	Pro	Ile
			195					200					205		
Met	Tyr	Lys	Thr	Thr	Ser	Gly	His	Val	Gln	Phe	Asp	Asn	Cys	Asn	Phe
	210					215						220			
Glu	Asn	Gly	His	Ile	Gln	Val	His	Gly	Pro	Gly	Thr	Cys	Gln	Val	Lys
225					230					235				240	
Phe	Cys	Thr	Phe	Lys	Asn	Thr	His	Ile	Phe	Leu	His	Asn	Val	Pro	Leu

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Cys Val Leu Glu Asn Cys Glu Phe Val Gly Ser Glu Asn Asn Ser Val
                260                265                270
Thr Val Glu Gly His Pro Ser Ala Asp Lys Asn Trp Ala Tyr Lys Tyr
                275                280                285
Leu Leu Gly Leu Ile Lys Ser Ser Pro Thr Phe Leu Pro Thr Glu Asp
                290                295                300
Ser Asp Phe Leu Met Ser Leu Asp Leu Glu Ser Arg Asp Gln Ala Trp
305                310                315                320
Ser Pro Lys Thr Cys Asp Ile Val Ile Glu Gly Ser Gln Ser Pro Thr
                325                330                335
Ser Pro Ala Ser Ser Ser Pro Lys Pro Gly Ser Lys Ala Gly Ser Gln
                340                345                350
Glu Ala Glu Val Gly Ser Asp Gly Glu Arg Val Ala Gln Thr Pro Asp
                355                360                365
Ser Ser Asp Gly Gly Leu Ser Pro Ser Gly Glu Asp Glu Asp Glu Asp
                370                375                380
Gln Leu Met Tyr Arg Leu Ser Tyr Gln Val Gln Gly Pro Arg Pro Val
385                390                395                400
Leu Gly Gly Ser Phe Leu Gly Pro Pro Leu Pro Gly Ala Ser Ile Gln
                405                410                415
Leu Pro Ser Cys Leu Val Leu Asn Ser Leu Gln Gln Glu Leu Gln Lys
                420                425                430
Asp Lys Glu Ala Met Ala Leu Ala Asn Ser Val Gln Gly Cys Leu Ile
                435                440                445
Arg Lys Cys Leu Phe Arg Asp Gly Lys Gly Gly Val Phe Val Cys Ser
                450                455                460
His Gly Arg Ala Lys Met Glu Gly Asn Ile Phe Arg Asn Leu Thr Tyr
465                470                475                480
Ala Val Arg Cys Ile His Asn Ser Lys Ile Ile Met Leu Arg Asn Asp
                485                490                495
Ile Tyr Arg Cys Arg Ala Ser Gly Ile Phe Leu Arg Leu Glu Gly Gly
                500                505                510
Gly Leu Ile Ala Gly Asn Asn Ile Tyr His Asn Ala Glu Ala Gly Val
                515                520                525
Asp Ile Arg Lys Lys Ser Asn Pro Leu Gln Ile Gly Asn Pro Arg Ala
                530                535                540
Glu Phe Leu Ala Ser Arg Ala
545                550

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&lt;210&gt; 4821

&lt;211&gt; 585

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4821

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240

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<210> 4822

<211> 195

<212> PRT

<213> Homo sapiens

<400> 4822

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Lys	Pro	Val	Val	Lys	Leu	Leu	His	Asn	Arg	Ser	Asn	Asn	Lys	Tyr	Ser
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Tyr	Thr	Ser	Thr	Ser	Asp	Asp	Asn	Leu	Leu	Lys	Asn	Ile	Glu	Leu	Phe
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145				150					155					160	
Lys	Ile	Ala	Glu	Val	Cys	Cys	Thr	Ser	Ile	Val	Tyr	Ala	Thr	Glu	Lys
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Lys	Gln	Thr	Lys	Val	Arg	Gly	Ala	Pro	Glu	Pro	Met	Leu	Gly	Ala	Gly
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<210> 4823

<211> 1984

<212> DNA

<213> Homo sapiens

<400> 4823

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 1984

<210> 4824

<211> 547

<212> PRT

<213> Homo sapiens

<400> 4824

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 20 25 30  
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 35 40 45  
 Val Phe Ile Ser Asn Ile Pro Tyr Asp Met Lys Trp Gln Ala Ile Lys  
 50 55 60  
 Asp Leu Met Arg Glu Lys Val Gly Glu Val Thr Tyr Val Glu Leu Phe  
 65 70 75 80  
 Lys Asp Ala Glu Gly Lys Ser Arg Gly Cys Gly Val Val Glu Phe Lys  
 85 90 95  
 Asp Glu Glu Phe Val Lys Lys Ala Leu Glu Thr Met Asn Lys Tyr Asp  
 100 105 110  
 Leu Ser Gly Arg Pro Leu Asn Ile Lys Glu Asp Pro Asp Gly Glu Asn  
 115 120 125  
 Ala Arg Arg Ala Leu Gln Arg Thr Gly Gly Ser Phe Pro Gly Gly His  
 130 135 140  
 Val Pro Asp Met Gly Ser Gly Leu Met Asn Leu Pro Pro Ser Ile Leu  
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 Asn Asn Pro Asn Ile Pro Pro Glu Val Ile Ser Asn Leu Gln Ala Gly  
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 Arg Leu Gly Ser Thr Ile Phe Val Ala Asn Leu Asp Phe Lys Val Gly  
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 Trp Lys Lys Leu Lys Glu Val Phe Ser Ile Ala Gly Thr Val Lys Arg  
 195 200 205  
 Ala Asp Ile Lys Glu Asp Lys Asp Gly Lys Ser Arg Gly Met Gly Thr  
 210 215 220  
 Val Thr Phe Glu Gln Ala Ile Glu Ala Val Gln Ala Ile Ser Met Phe  
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 Lys Ser Val Pro His Glu Glu Tyr Arg Ser Pro Asp Gly Lys Thr Pro  
 260 265 270  
 Gln Leu Pro Arg Gly Leu Gly Gly Ile Gly Met Gly Leu Gly Pro Gly

275                      280                      285  
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 290                      295                      300  
 Asn Leu Gly Pro Gly Gly Met Gly Met Asp Gly Pro Gly Phe Gly Gly  
 305                      310                      315                      320  
 Met Asn Arg Ile Gly Gly Gly Ile Gly Phe Gly Gly Leu Glu Ala Met  
 325                      330                      335  
 Asn Ser Met Gly Gly Phe Gly Gly Val Gly Arg Met Gly Glu Leu Tyr  
 340                      345                      350  
 Arg Gly Ala Met Thr Ser Ser Met Glu Arg Asp Phe Gly Arg Gly Asp  
 355                      360                      365  
 Ile Gly Ile Asn Arg Ala Phe Gly Asp Ser Phe Gly Arg Leu Gly Ser  
 370                      375                      380  
 Ala Met Ile Gly Gly Ile Thr Gly Arg Ile Gly Ser Ser Asn Met Gly  
 385                      390                      395                      400  
 Pro Val Gly Ser Gly Ile Ser Gly Gly Met Gly Ser Met Asn Ser Val  
 405                      410                      415  
 Thr Gly Gly Met Gly Met Gly Leu Asp Arg Met Ser Ser Ser Phe Asp  
 420                      425                      430  
 Arg Met Gly Pro Gly Ile Gly Ala Ile Leu Glu Arg Ser Ile Asp Met  
 435                      440                      445  
 Asp Arg Gly Phe Leu Ser Gly Pro Met Gly Ser Gly Met Arg Glu Arg  
 450                      455                      460  
 Ile Gly Ser Lys Gly Asn Gln Ile Phe Val Arg Asn Leu Pro Phe Asp  
 465                      470                      475                      480  
 Leu Thr Trp Gln Lys Leu Lys Glu Lys Phe Ser Gln Cys Gly His Val  
 485                      490                      495  
 Met Phe Ala Glu Ile Lys Met Glu Asn Gly Lys Ser Lys Gly Cys Gly  
 500                      505                      510  
 Thr Val Arg Phe Asp Ser Pro Glu Ser Ala Glu Lys Ala Cys Arg Ile  
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&lt;210&gt; 4825

&lt;211&gt; 2380

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4825

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1980

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<211> 105

<212> PRT

<213> Homo sapiens

<400> 4826

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		20					25						30		
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Ser	Met	Lys	Arg	Gly	Leu	Asp	Val	Gln	Met	Glu	Thr	Cys	Arg	Arg	Leu
	50					55					60				
Ile	Thr	Gln	Ser	Gly	Asp	Arg	Lys	Ser	Pro	Ala	Phe	Thr	Ala	Val	Pro
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Leu	Ser	Asp	Pro	Pro	Pro	Pro	Ser	Glu	Ala	Glu	Asp	Ser	Asp	Arg	
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Asp	Val	Ser	Ser	Asp	Ser	Ser	Met	Arg							
			100					105							

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<211> 6277

<212> DNA

<213> Homo sapiens

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 5640  
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&lt;210&gt; 4828

&lt;211&gt; 1322

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4828

Met	Asp	Ser	Arg	Gly	Leu	Pro	Ala	Trp	Thr	Ser	Gln	Ser	Thr	Glu	Ile
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Ser	Thr	Cys	Gly	Glu	Glu	Thr	Met	Asp	Ser	Leu	Asp	His	Met	Leu	Thr
			20					25					30		
Asp	Pro	Leu	Glu	Leu	Gly	Pro	Cys	Gly	Asp	Gly	His	Gly	Thr	Arg	Ile
			35					40				45			
Met	Glu	Asp	Cys	Leu	Leu	Gly	Gly	Thr	Arg	Val	Ser	Leu	Pro	Glu	Asp
			50			55					60				
Leu	Leu	Glu	Asp	Pro	Glu	Ile	Phe	Phe	Asp	Val	Val	Ser	Leu	Ser	Thr
			65			70				75				80	
Trp	Gln	Glu	Val	Leu	Ser	Asp	Ser	Gln	Arg	Glu	His	Leu	Gln	Gln	Phe

[illegible]

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Thr Asp Tyr Val Val Arg Pro Ser Thr Gly Glu Glu Lys Arg Val Phe
530              535              540
Gln Glu Gln Glu Arg Tyr Arg Tyr Ser Gln Pro His Lys Ala Phe Thr
545              550              555              560
Phe Arg Met His Gly Phe Glu Ser Val Val Gly Pro Val Lys Gly Val
565              570              575
Phe Asp Lys Glu Thr Ser Leu Asn Lys Ala Arg Glu His Ser Leu Leu
580              585              590
Arg Ser Asp Arg Pro Ala Tyr Val Thr Ile Leu Ser Leu Val Arg Asp
595              600              605
Ala Ala Ala Arg Leu Pro Asn Gly Glu Gly Thr Arg Ala Glu Ile Cys
610              615              620
Glu Leu Leu Lys Asp Ser Gln Phe Leu Ala Pro Asp Val Thr Ser Thr
625              630              635              640
Gln Val Asn Thr Val Val Ser Gly Ala Leu Asp Arg Leu His Tyr Glu
645              650              655
Lys Asp Pro Cys Val Lys Tyr Asp Ile Gly Arg Lys Leu Trp Ile Tyr
660              665              670
Leu His Arg Asp Arg Ser Glu Glu Glu Phe Glu Arg Ile His Gln Ala
675              680              685
Gln Ala Ala Ala Lys Ala Arg Lys Ala Leu Gln Gln Lys Pro Lys
690              695              700
Pro Pro Ser Lys Val Lys Ser Ser Ser Lys Glu Ser Ser Ile Lys Val
705              710              715              720
Leu Ser Ser Gly Pro Ser Glu Gln Ser Gln Met Ser Leu Ser Asp Ser
725              730              735
Ser Met Pro Pro Thr Pro Val Thr Pro Val Thr Pro Thr Thr Pro Ala
740              745              750
Leu Pro Ala Ile Pro Ile Ser Pro Pro Pro Val Ser Ala Val Asn Lys
755              760              765
Ser Gly Pro Ser Thr Val Ser Glu Pro Ala Lys Ser Ser Ser Gly Val
770              775              780
Leu Leu Val Ser Ser Pro Thr Met Pro His Leu Gly Thr Met Leu Ser
785              790              795              800
Pro Ala Ser Ser Gln Thr Ala Pro Ser Ser Gln Ala Ala Ala Arg Val
805              810              815
Val Ser His Ser Gly Ser Ala Gly Leu Ser Gln Val Arg Val Val Ala
820              825              830
Gln Pro Ser Leu Pro Ala Val Pro Gln Gln Ser Gly Gly Pro Ala Gln
835              840              845
Thr Leu Pro Gln Met Pro Ala Gly Pro Gln Ile Arg Val Pro Ala Thr
850              855              860
Ala Thr Gln Thr Lys Val Val Pro Gln Thr Val Met Ala Thr Val Pro
865              870              875              880
Val Lys Ala Gln Thr Thr Ala Ala Thr Val Gln Arg Pro Gly Pro Gly
885              890              895
Gln Thr Gly Leu Thr Val Thr Ser Leu Pro Ala Thr Ala Ser Pro Val
900              905              910
Ser Lys Pro Ala Thr Ser Ser Pro Gly Thr Ser Ala Pro Ser Ala Ser
915              920              925
Thr Ala Ala Val Ile Gln Asn Val Thr Gly Gln Asn Ile Ile Lys Gln
930              935              940
Val Ala Ile Thr Gly Gln Leu Gly Val Lys Pro Gln Thr Gly Asn Ser

```

945                      950                      955                      960  
 Ile Pro Leu Thr Ala Thr Asn Phe Arg Ile Gln Gly Lys Asp Val Leu  
                          965                      970                      975  
 Arg Leu Pro Pro Ser Ser Ile Thr Thr Asp Ala Lys Gly Gln Thr Val  
                          980                      985                      990  
 Leu Arg Ile Thr Pro Asp Met Met Ala Thr Leu Ala Lys Ser Gln Val  
                          995                      1000                      1005  
 Thr Thr Val Lys Leu Thr Gln Asp Leu Phe Gly Thr Gly Gly Asn Thr  
                          1010                      1015                      1020  
 Thr Gly Lys Gly Ile Ser Ala Thr Leu His Val Thr Ser Asn Pro Val  
 1025                      1030                      1035                      1040  
 His Ala Ala Asp Ser Pro Ala Lys Ala Ser Ser Ala Ser Ala Pro Ser  
                          1045                      1050                      1055  
 Ser Thr Pro Thr Gly Thr Thr Val Val Lys Val Thr Pro Asp Leu Lys  
                          1060                      1065                      1070  
 Pro Thr Glu Ala Ser Ser Ser Ala Phe Arg Leu Met Pro Ala Leu Gly  
                          1075                      1080                      1085  
 Val Ser Val Ala Asp Gln Lys Gly Lys Ser Thr Val Ala Ser Ser Glu  
                          1090                      1095                      1100  
 Ala Lys Pro Ala Ala Thr Ile Arg Ile Val Gln Gly Leu Gly Val Met  
 1105                      1110                      1115                      1120  
 Pro Pro Lys Ala Gly Gln Thr Ile Thr Val Ala Thr His Ala Lys Gln  
                          1125                      1130                      1135  
 Gly Ala Ser Val Ala Ser Gly Ser Gly Thr Val His Thr Ser Ala Val  
                          1140                      1145                      1150  
 Ser Leu Pro Ser Met Asn Ala Ala Val Ser Lys Thr Val Ala Val Ala  
                          1155                      1160                      1165  
 Ser Gly Ala Ala Ser Thr Pro Ile Ser Ile Ser Thr Gly Ala Pro Thr  
                          1170                      1175                      1180  
 Val Arg Gln Val Pro Val Ser Thr Thr Val Val Ser Thr Ser Gln Ala  
 1185                      1190                      1195                      1200  
 Gly Lys Leu Pro Thr Arg Ile Thr Val Pro Leu Ser Val Ile Ser Gln  
                          1205                      1210                      1215  
 Pro Met Lys Gly Lys Ser Val Val Thr Ala Pro Ile Ile Lys Gly Asn  
                          1220                      1225                      1230  
 Leu Gly Ala Asn Leu Ser Gly Leu Gly Arg Asn Ile Ile Leu Thr Thr  
                          1235                      1240                      1245  
 Met Pro Ala Gly Thr Lys Leu Ile Ala Gly Asn Lys Pro Val Ser Phe  
                          1250                      1255                      1260  
 Leu Thr Ala Gln Gln Leu Gln Gln Leu Gln Gln Gly Gln Ala Thr  
 1265                      1270                      1275                      1280  
 Gln Val Arg Ile Gln Thr Val Pro Ala Ser Xaa Leu Gln Gln Gly Thr  
                          1285                      1290                      1295  
 Ala Ser Gly Ser Ser Lys Ala Val Ser Thr Val Val Val Thr Thr Ala  
                          1300                      1305                      1310  
 Pro Ser Pro Lys Gln Ala Pro Glu Gln Gln  
                          1315                      1320

&lt;210&gt; 4829

&lt;211&gt; 1605

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4829

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120  
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180  
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240  
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300  
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360  
caagataagg accaatgtat tctcattact ggggaaagtg gagcaggaaa aacagaggcc  
420  
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600  
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660  
cagccaagag gtgaaagaaa cttccatgtg ttctatcagc tgctctctgg tgctctgaa  
720  
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780  
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960  
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1380  
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1605

&lt;210&gt; 4830

&lt;211&gt; 512

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4830

```

Met Ala Lys Met Glu Val Lys Thr Ser Leu Leu Asp Asn Met Ile Gly
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Val Gly Asp Met Val Leu Leu Glu Pro Leu Asn Glu Glu Thr Phe Ile
 20          25          30
Asn Asn Leu Lys Lys Arg Phe Asp His Ser Glu Ile Tyr Thr Tyr Ile
 35          40          45
Gly Ser Val Val Ile Ser Val Asn Pro Tyr Arg Ser Leu Pro Ile Tyr
 50          55          60
Ser Pro Glu Lys Val Glu Glu Tyr Arg Asn Arg Asn Phe Tyr Glu Leu
 65          70          75          80
Ser Pro His Ile Phe Ala Leu Ser Asp Glu Ala Tyr Arg Ser Leu Arg
 85          90          95
Asp Gln Asp Lys Asp Gln Cys Ile Leu Ile Thr Gly Glu Ser Gly Ala
100          105          110
Gly Lys Thr Glu Ala Ser Lys Leu Val Met Ser Tyr Val Ala Ala Val
115          120          125
Cys Gly Lys Gly Ala Glu Val Asn Gln Val Lys Glu Gln Leu Leu Gln
130          135          140
Ser Asn Pro Val Leu Glu Ala Phe Gly Asn Ala Lys Thr Val Arg Asn
145          150          155          160
Asp Asn Ser Ser Arg Phe Gly Lys Tyr Met Asp Ile Glu Phe Asp Phe
165          170          175
Lys Gly Asp Pro Leu Gly Gly Val Ile Ser Asn Tyr Leu Leu Glu Lys
180          185          190
Ser Arg Val Val Lys Gln Pro Arg Gly Glu Arg Asn Phe His Val Phe
195          200          205
Tyr Gln Leu Leu Ser Gly Ala Ser Glu Glu Leu Leu Asn Lys Leu Lys
210          215          220
Leu Glu Arg Asp Phe Ser Arg Tyr Asn Tyr Leu Ser Leu Asp Ser Ala
225          230          235          240
Lys Val Asn Gly Val Asp Asp Ala Ala Asn Phe Arg Thr Val Arg Asn
245          250          255
Ala Met Gln Ile Val Gly Phe Met Asp His Glu Ala Glu Ser Val Leu
260          265          270
Ala Val Val Ala Ala Val Leu Lys Leu Gly Asn Ile Glu Phe Lys Pro
275          280          285
Glu Ser Arg Val Asn Gly Leu Asp Glu Ser Lys Ile Lys Asp Lys Asn
290          295          300
Glu Leu Lys Glu Ile Cys Glu Leu Thr Gly Ile Asp Gln Ser Val Leu
305          310          315          320
Glu Arg Ala Phe Ser Phe Arg Thr Val Glu Ala Lys Gln Glu Lys Val
325          330          335
Ser Thr Thr Leu Asn Val Ala Gln Ala Tyr Tyr Ala Arg Asp Ala Leu
340          345          350
Ala Lys Asn Leu Tyr Ser Arg Leu Phe Ser Trp Leu Val Asn Arg Ile
355          360          365
Asn Glu Ser Ile Lys Ala Gln Thr Lys Val Arg Lys Lys Val Met Gly

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370					375					380					
Val	Leu	Asp	Ile	Tyr	Gly	Phe	Glu	Ile	Phe	Glu	Asp	Asn	Ser	Phe	Glu
385					390					395					
Gln	Phe	Ile	Ile	Asn	Tyr	Cys	Asn	Glu	Lys	Leu	Gln	Gln	Ile	Phe	Ile
405					410					415					
Glu	Leu	Thr	Leu	Lys	Glu	Glu	Gln	Glu	Glu	Tyr	Ile	Arg	Glu	Asp	Ile
420					425					430					
Glu	Trp	Thr	His	Ile	Asp	Tyr	Phe	Asn	Asn	Ala	Ile	Ile	Cys	Asp	Leu
435					440					445					
Ile	Glu	Asn	Asn	Thr	Asn	Gly	Ile	Leu	Ala	Met	Leu	Asp	Glu	Glu	Cys
450					455					460					
Leu	Arg	Pro	Gly	Thr	Val	Thr	Asp	Glu	Thr	Phe	Leu	Glu	Lys	Leu	Asn
465					470					475					
Gln	Val	Cys	Ala	Thr	His	Gln	His	Phe	Glu	Ser	Arg	Met	Ser	Lys	Cys
485					490					495					
Ser	Arg	Phe	Leu	Asn	Asp	Thr	Ser	Leu	Pro	His	Ser	Cys	Phe	Arg	Ile
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<210> 4831
<211> 578
<212> DNA
<213> Homo sapiens
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120
ggcgccgagc acgggggacga gccgcgccac gggggcctca ctctgcgcct gggcctccac
180
cagcagagcg tgctcggcgg ccaggaccag ctgcgcgtcc gtgtgacgga gctggaggac
240
gaggtgcgca acctgcgcaa gatcaatcgg gacctgttcg acttctccac gcgcttcac
300
acgcggcgcg ccaagtgagg cccggagacc ccggcccagc gcgcccaggc ctgagcccca
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420
tcagttctgt gtcgtgttcg ggtttttcct ctgtgactgg gccgtcttgg tgtctcgtgg
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540
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaa
578

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<210> 4832
<211> 105
<212> PRT
<213> Homo sapiens
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<210> 4834
<211> 147
<212> PRT
<213> Homo sapiens
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&lt;400&gt; 4834

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Met Thr His Gln Asp Leu Ser Ile Thr Ala Lys Leu Ile Asn Gly Gly
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Val Ala Gly Leu Val Gly Val Thr Cys Val Phe Pro Ile Asp Leu Ala
      20           25           30
Lys Thr Arg Leu Gln Asn Gln His Gly Lys Ala Met Tyr Lys Gly Met
      35           40           45
Ile Asp Cys Leu Met Lys Thr Ala Arg Ala Glu Gly Phe Phe Gly Met
      50           55           60
Tyr Arg Gly Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala
65           70           75           80
Ile Lys Leu Ala Ala Asn Asp Phe Phe Arg Arg Leu Leu Met Glu Asp
      85           90           95
Gly Met Gln Arg Asn Leu Lys Met Glu Met Leu Ala Gly Cys Gly Ala
      100          105          110
Gly Met Cys Gln Val Val Val Thr Cys Pro Met Glu Met Leu Lys Ile
      115          120          125
Gln Leu Gln Ala Cys Trp Thr Pro Gly Arg Pro Ser Ser Gly Leu Gly
      130          135          140
Leu Ser Thr
145

```

&lt;210&gt; 4835

&lt;211&gt; 1846

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4835

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780

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 1440  
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 1846

&lt;210&gt; 4836

&lt;211&gt; 349

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4836

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Thr	Tyr	Gln	Glu	Ile	Gln	Glu	Leu	Gln	Trp	Glu	Ile	Gln	Asn	Thr	Ser
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His	Leu	Ala	Val	Asp	Gly	Asp	Arg	Ala	Ala	Ala	Trp	Pro	Val	Gly	Ile
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Pro	Ala	Pro	Ser	Arg	Pro	Ala	Ser	Arg	Phe	Glu	Val	Leu	Arg	Trp	Asp
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Tyr	Phe	Thr	Glu	Gln	His	Ala	Phe	Ser	Cys	Ala	Asp	Gly	Ser	Pro	Arg

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Cys	Pro	Leu	Arg	Gly	Ala	Asp	Arg	Ala	Asp	Val	Ala	Asp	Val	Leu	Gly
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Thr	Ala	Leu	Glu	Glu	Leu	Asn	Arg	Arg	Tyr	His	Pro	Ala	Leu	Arg	Leu
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Gln	Lys	Gln	Gln	Leu	Val	Asn	Gly	Tyr	Arg	Arg	Phe	Asp	Pro	Ala	Arg
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Lys	His	Pro	Leu	Asp	Thr	Leu	Phe	Leu	Leu	Ala	Gly	Pro	Asp	Thr	Val
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&lt;210&gt; 4837

&lt;211&gt; 906

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4837

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&lt;210&gt; 4838

&lt;211&gt; 302

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4838

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Asn	Leu	Thr	Asn	Gly	Ser	Asn	Gly	Arg	Asn	Thr	Glu	Ser	Pro	Ala
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Glu	Asn	Ile	Thr	Thr	Gln	Thr	Leu	Thr	Arg	Phe	Ala	Glu	Ala	Leu
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Asp	Asn	Thr	Val	Val	Lys	Thr	Phe	Ser	Leu	Ala	Asn	Thr	His	Ala
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Asp	Ser	Ala	Ala	Met	Ala	Ile	Ala	Glu	Met	Leu	Lys	Val	Asn	Glu
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Ile	Thr	Asn	Val	Asn	Val	Glu	Ser	Asn	Phe	Ile	Thr	Gly	Lys	Gly
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	210					215					220			
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&lt;210&gt; 4839

&lt;211&gt; 1313

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4839

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&lt;213&gt; Homo sapiens

&lt;400&gt; 4842

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 20           25           30
Cys Pro Glu Gln Ser Leu Arg Asp Ala Ile Thr Leu Asp Leu Phe Cys
 35           40           45
His Ala Leu Ile Phe Cys Arg Gln Gln Gly Phe Ser Leu Glu Gln Thr
 50           55           60
Ser Ala Ala Cys Ala Leu Leu Gln Asp Leu His Lys Ala Cys Ile Gly
 65           70           75           80
His Ile His Val Leu Arg Ala Tyr Ile Lys Thr Gln Val Asn Lys Glu
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Leu Glu Gln Leu Gln Gly Leu Val Glu Glu Arg Ser Arg Pro Ala Arg
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&lt;210&gt; 4843

&lt;211&gt; 6403

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4843

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&lt;210&gt; 4844

&lt;211&gt; 1675

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4844

Gly Thr Ser Cys Arg Ser Arg Gly Leu Ala Ser Ala Gln Arg Ser Asp  
 1 5 10 15  
 Pro Cys Leu Ala Val Ala Ser Met Ala Pro Thr Leu Phe Gln Lys Leu  
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 Phe Ser Lys Arg Thr Gly Leu Gly Ala Pro Gly Arg Asp Ala Arg Asp  
 35 40 45  
 Pro Asp Cys Gly Phe Ser Trp Pro Leu Pro Glu Phe Asp Pro Ser Gln  
 50 55 60  
 Ile Arg Leu Ile Val Tyr Gln Asp Cys Glu Arg Arg Gly Arg Asn Val  
 65 70 75 80  
 Leu Phe Asp Ser Ser Val Lys Arg Arg Asn Glu Asp Ile Ser Val Ser  
 85 90 95  
 Asp Leu Asn Thr Ile Tyr Ser Tyr Leu His Gly Met Glu Ile Leu Ser  
 100 105 110  
 Asn Leu Arg Glu His Gln Leu Arg Leu Met Ser Ala Arg Ala Arg Tyr  
 115 120 125  
 Glu Arg Tyr Ser Gly Asn Gln Val Leu Phe Cys Ser Glu Thr Ile Ala  
 130 135 140  
 Arg Cys Trp Tyr Ile Leu Leu Ser Gly Ser Val Leu Val Lys Gly Ser  
 145 150 155 160  
 Met Val Leu Pro Pro Cys Ser Phe Gly Lys Gln Phe Gly Gly Lys Arg  
 165 170 175  
 Gly Cys Asp Cys Leu Val Leu Glu Pro Ser Glu Met Ile Val Val Glu

4027

610 615 620  
 Lys Gly Phe Gly Ile Phe Val Glu Gly Val Glu Pro Gly Ser Lys Ala  
 625 630 635 640  
 Ala Asp Ser Gly Leu Lys Arg Gly Asp Gln Ile Met Glu Val Asn Gly  
 645 650 655  
 Gln Asn Phe Glu Asn Ile Thr Phe Met Lys Ala Val Glu Ile Leu Arg  
 660 665 670  
 Asn Asn Thr His Leu Ala Leu Thr Val Lys Thr Asn Ile Phe Val Phe  
 675 680 685  
 Lys Glu Leu Leu Phe Arg Thr Glu Gln Glu Lys Ser Gly Val Pro His  
 690 695 700  
 Ile Pro Lys Ile Ala Glu Lys Lys Ser Asn Arg His Ser Ile Gln His  
 705 710 715 720  
 Val Pro Gly Asp Ile Glu Gln Thr Ser Gln Glu Lys Gly Ser Lys Lys  
 725 730 735  
 Val Lys Ala Asn Thr Val Ser Gly Gly Arg Asn Lys Ile Arg Lys Ile  
 740 745 750  
 Leu Asp Lys Thr Arg Phe Ser Ile Leu Pro Pro Lys Leu Phe Ser Asp  
 755 760 765  
 Gly Gly Leu Ser Gln Ser Gln Asp Asp Ser Ile Val Gly Thr Arg His  
 770 775 780  
 Cys Arg His Ser Leu Ala Ile Met Pro Ile Pro Gly Thr Leu Ser Ser  
 785 790 795 800  
 Ser Ser Pro Asp Leu Leu Gln Pro Thr Thr Ser Met Leu Asp Phe Ser  
 805 810 815  
 Asn Pro Ser Asp Ile Pro Asp Gln Val Ile Arg Val Phe Lys Val Asp  
 820 825 830  
 Gln Gln Ser Cys Tyr Ile Ile Ile Ser Lys Asp Thr Thr Ala Lys Glu  
 835 840 845  
 Val Val Phe His Ala Val His Glu Phe Gly Leu Thr Gly Ala Ser Asp  
 850 855 860  
 Thr Tyr Ser Leu Cys Glu Val Ser Val Thr Pro Glu Gly Val Ile Lys  
 865 870 875 880  
 Gln Arg Arg Leu Pro Asp Gln Phe Ser Lys Leu Ala Asp Arg Ile Gln  
 885 890 895  
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 980 985 990  
 Thr Glu Ala Asn Gln Leu Lys Arg Met Lys Ile Ile Lys His Phe Ile  
 995 1000 1005  
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 1010 1015 1020  
 Ala Ile Ile Ser Gly Leu Asn Leu Ala Ser Val Ala Arg Leu Arg Gly  
 1025 1030 1035 1040  
 Thr Trp Glu Lys Leu Pro Ser Lys Tyr Glu Lys His Leu Gln Asp Leu

	1045		1050		1055
Gln Asp Ile Phe Asp Pro Ser Arg Asn Met Ala Lys Tyr Arg Asn Ile					
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Leu Ser Ser Gln Ser Met Gln Pro Pro Ile Ile Pro Leu Phe Pro Val					
	1075		1080		1085
Val Lys Lys Asp Met Thr Phe Leu His Glu Gly Asn Asp Ser Lys Val					
	1090		1095		1100
Asp Gly Leu Val Asn Phe Glu Lys Leu Arg Met Ile Ser Lys Glu Ile					
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Arg Gln Val Val Arg Met Thr Ser Ala Asn Met Asp Pro Ala Met Met					
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Phe Arg Gln Arg Ser Leu Ser Gln Gly Ser Thr Asn Ser Asn Met Leu					
	1140		1145		1150
Asp Val Gln Gly Gly Ala His Lys Lys Arg Ala Arg Arg Ser Ser Leu					
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Leu Asn Ala Lys Lys Leu Tyr Glu Asp Ala Gln Met Ala Arg Lys Val					
	1170		1175		1180
Lys Gln Tyr Leu Ser Ser Leu Asp Val Glu Thr Asp Glu Glu Lys Phe					
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Gln Met Met Ser Leu Gln Trp Glu Pro Ala Tyr Gly Thr Leu Thr Lys					
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Asn Leu Ser Glu Lys Arg Ser Ala Lys Xaa Ser Ser Glu Met Ser Pro					
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Val Pro Met Arg Ser Ala Gly Gln Thr Thr Lys Ala His Leu His Gln					
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Pro His Arg Val Ser Gln Val Leu Gln Val Pro Ala Val Asn Leu His					
	1250		1255		1260
Pro Ile Arg Lys Lys Gly Gln Thr Lys Asp Pro Ala Leu Asn Thr Ser					
1265	1270		1275		1280
Leu Pro Gln Lys Val Leu Gly Thr Thr Glu Glu Ile Ser Gly Lys Lys					
	1285		1290		1295
His Thr Glu Asp Thr Ile Ser Val Ala Ser Ser Leu His Ser Ser Pro					
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Pro Ala Ser Pro Gln Gly Ser Pro His Lys Gly Tyr Thr Leu Ile Pro					
	1315		1320		1325
Ser Ala Lys Ser Asp Asn Leu Ser Asp Ser Ser His Ser Glu Ile Ser					
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Ser Arg Ser Ser Ile Val Ser Asn Cys Ser Val Asp Ser Met Ser Ala					
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Ala Leu Gln Asp Glu Arg Cys Ser Ser Gln Ala Leu Ala Val Pro Glu					
	1365		1370		1375
Ser Thr Gly Ala Leu Glu Lys Thr Glu His Ala Ser Gly Ile Gly Asp					
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His Ser Gln His Gly Pro Gly Trp Thr Leu Leu Lys Pro Ser Leu Ile					
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Lys Cys Leu Ala Val Ser Ser Ser Val Ser Asn Glu Glu Ile Ser Gln					
	1410		1415		1420
Glu His Ile Ile Ile Glu Ala Ala Asp Ser Gly Arg Gly Ser Trp Thr					
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Ser Cys Ser Ser Ser Ser His Asp Asn Phe Gln Ser Leu Pro Asn Pro					
	1445		1450		1455
Lys Ser Trp Asp Phe Leu Asn Ser Tyr Arg His Thr His Leu Asp Asp					
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Pro Ile Ala Glu Val Glu Pro Thr Asp Ser Glu Pro Tyr Ser Cys Ser					

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 Lys Ser Trp Thr Ser Ser Ser Ser Leu Ser Asp Thr Tyr Glu Pro Asn  
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 Ser Glu Gly Leu Asp Pro Lys Asp Ala Thr Asp Pro Val Tyr Lys Thr  
 1540                      1545                      1550  
 Val Thr Ser Ser Thr Glu Lys Gly Leu Ile Val Tyr Cys Val Thr Ser  
 1555                      1560                      1565  
 Pro Lys Lys Asp Asp Arg Tyr Arg Glu Pro Pro Pro Thr Pro Pro Gly  
 1570                      1575                      1580  
 Tyr Leu Gly Ile Ser Leu Ala Asp Leu Lys Glu Gly Pro His Thr His  
 1585                      1590                      1595                      1600  
 Leu Lys Pro Pro Asp Tyr Ser Val Ala Val Gln Arg Ser Lys Met Met  
 1605                      1610                      1615  
 His Asn Ser Leu Ser Arg Leu Pro Pro Ala Ser Leu Ser Ser Asn Leu  
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 Glu Ala Cys Val Pro Ser Lys Ile Val Thr Gln Pro Gln Arg His Asn  
 1635                      1640                      1645  
 Leu Gln Pro Phe His Pro Lys Leu Gly Asp Val Thr Asp Ala Asp Ser  
 1650                      1655                      1660  
 Glu Ala Asp Glu Asn Glu Gln Val Ser Ala Val  
 1665                      1670                      1675

&lt;210&gt; 4845

&lt;211&gt; 3286

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4845

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3286

&lt;210&gt; 4846

&lt;211&gt; 626

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4846

Met	Asp	Glu	Gln	Glu	Ala	Leu	Asn	Ser	Ile	Met	Asn	Asp	Leu	Val	Ala
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Leu	Gln	Met	Asn	Arg	Arg	His	Arg	Met	Pro	Gly	Tyr	Glu	Thr	Met	Lys
			20					25					30		
Asn	Lys	Asp	Thr	Gly	His	Ser	Asn	Arg	Gln	Ser	Asp	Val	Arg	Ile	Lys
		35						40				45			
Phe	Glu	His	Asn	Gly	Glu	Arg	Arg	Ile	Ile	Ala	Phe	Ser	Arg	Pro	Val
	50				55						60				
Lys	Tyr	Glu	Asp	Val	Glu	His	Lys	Val	Thr	Thr	Val	Phe	Gly	Gln	Pro
65					70				75					80	
Leu	Asp	Leu	His	Tyr	Met	Asn	Asn	Glu	Leu	Ser	Ile	Leu	Leu	Lys	Asn
			85					90						95	
Gln	Asp	Asp	Leu	Asp	Lys	Ala	Ile	Asp	Ile	Leu	Asp	Arg	Ser	Ser	Ser

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      100      105      110
Met Lys Ser Leu Arg Ile Leu Leu Ser Gln Asp Arg Asn His Asn
      115      120      125
Ser Ser Ser Pro His Ser Gly Val Ser Arg Gln Val Arg Ile Lys Ala
      130      135      140
Ser Gln Ser Ala Gly Asp Ile Asn Thr Ile Tyr Gln Pro Pro Glu Pro
145      150      155      160
Arg Ser Arg His Leu Ser Val Ser Ser Gln Asn Pro Gly Arg Ser Ser
      165      170      175
Pro Pro Pro Gly Tyr Val Pro Glu Arg Gln Gln His Ile Ala Arg Gln
      180      185      190
Gly Ser Tyr Thr Ser Ile Asn Ser Glu Gly Glu Phe Ile Pro Glu Thr
      195      200      205
Ser Glu Gln Cys Met Leu Asp Pro Leu Ser Ser Ala Glu Asn Ser Leu
      210      215      220
Ser Gly Ser Cys Gln Ser Leu Asp Arg Ser Ala Asp Ser Pro Ser Phe
225      230      235      240
Arg Lys Ser Arg Met Ser Arg Ala Gln Ser Phe Pro Asp Asn Arg Gln
      245      250      255
Glu Tyr Ser Asp Arg Glu Thr Gln Leu Tyr Asp Lys Gly Val Lys Gly
      260      265      270
Gly Thr Tyr Pro Arg Arg Tyr His Val Ser Val His His Lys Asp Tyr
      275      280      285
Ser Asp Gly Arg Arg Thr Phe Pro Arg Ile Arg Arg His Gln Gly Asn
      290      295      300
Leu Phe Thr Leu Val Pro Ser Ser Arg Ser Leu Ser Thr Asn Gly Glu
305      310      315      320
Asn Met Gly Leu Ala Val Gln Tyr Leu Asp Pro Arg Gly Arg Leu Arg
      325      330      335
Ser Ala Asp Ser Glu Asn Ala Leu Ser Val Gln Glu Arg Asn Val Pro
      340      345      350
Thr Lys Ser Pro Ser Ala Pro Ile Asn Trp Arg Arg Gly Lys Leu Leu
      355      360      365
Gly Gln Gly Ala Phe Gly Arg Val Tyr Leu Cys Tyr Asp Val Asp Thr
      370      375      380
Gly Arg Glu Leu Ala Ser Lys Gln Val Gln Phe Asp Pro Asp Ser Pro
385      390      395      400
Glu Thr Ser Lys Glu Val Ser Ala Leu Glu Cys Glu Ile Gln Leu Leu
      405      410      415
Lys Asn Leu Gln His Glu Arg Ile Val Gln Tyr Tyr Gly Cys Leu Arg
      420      425      430
Asp Arg Ala Glu Lys Thr Leu Thr Ile Phe Met Glu Tyr Met Pro Gly
      435      440      445
Gly Ser Val Lys Asp Gln Leu Lys Ala Tyr Gly Ala Leu Thr Glu Ser
      450      455      460
Val Thr Arg Lys Tyr Thr Arg Gln Ile Leu Glu Gly Met Ser Tyr Leu
465      470      475      480
His Ser Asn Met Ile Val His Arg Asp Ile Lys Gly Ala Asn Ile Leu
      485      490      495
Arg Asp Ser Ala Gly Asn Val Lys Leu Gly Asp Phe Gly Ala Ser Lys
      500      505      510
Arg Leu Gln Thr Ile Cys Met Ser Gly Thr Gly Met Arg Ser Val Thr
      515      520      525
Gly Thr Pro Tyr Trp Met Ser Pro Glu Val Ile Ser Gly Glu Gly Tyr

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530	535	540
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Leu Thr Glu Lys Pro Pro Trp Ala Glu Tyr Glu Ala Met Ala Ala Ile		560
	565	570
Phe Lys Ile Ala Thr Gln Pro Thr Asn Pro Gln Leu Pro Ser His Ile		575
	580	585
Ser Glu His Gly Arg Asp Phe Leu Arg Arg Ile Phe Val Glu Ala Arg		590
	595	600
Gln Arg Pro Ser Ala Glu Glu Leu Leu Thr His His Phe Ala Gln Leu		605
	610	615
Met Tyr		620
625		

&lt;210&gt; 4847

&lt;211&gt; 2804

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4847

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 <213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4850

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				20				25					30		
Gln	Glu	Arg	Gly	Ser	Ala	His	Leu	Val	Ala	Leu	Lys	Cys	Ile	Pro	Lys
				35			40					45			
Lys	Ala	Leu	Arg	Gly	Lys	Glu	Ala	Leu	Val	Glu	Asn	Glu	Ile	Ala	Val
				50			55				60				
Leu	Arg	Arg	Ile	Ser	His	Pro	Asn	Ile	Val	Ala	Leu	Glu	Asp	Val	His
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Glu	Ser	Pro	Ser	His	Leu	Tyr	Leu	Ala	Met						
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<210> 4851

<211> 820

<212> DNA

<213> Homo sapiens

<400> 4851

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<210> 4852

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4852

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			20					25					30		
Ser	Ala	Ala	Leu	His	Arg	Arg	Val	Ala	Ala	Met	Arg	Glu	Ala	Gly	Thr
			35				40						45		
Ala	Leu	Pro	Asp	Gln	Tyr	Gln	Glu	Asp	Ala	Ser	Asp	Met	Lys	Asp	Met
			50			55					60				
Ser	Lys	Tyr	Lys	Pro	His	Ile	Leu	Leu	Ser	Gln	Glu	Asn	Thr	Gln	Ile
					70					75				80	
Arg	Asp	Leu	Gln	Gln	Glu	Asn	Arg	Glu	Leu	Trp	Ile	Ser	Leu	Glu	Glu
			85					90						95	
His	Gln	Asp	Ala	Leu	Glu	Leu	Ile	Met	Ser	Lys	Tyr	Arg	Lys	Gln	Met
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Leu	Gln	Leu	Met	Val	Ala	Lys	Lys	Ala	Val	Asp	Ala	Glu	Pro	Val	Leu
			115				120					125			
Lys	Ala	His	Gln	Ser	His	Ser	Ala	Glu	Ile	Glu	Ser	Gln	Ile	Asp	Arg
			130				135					140			
Ile	Cys	Glu	Met	Gly	Glu	Val	Met	Arg	Lys	Ala	Val	Gln	Val	Asp	Asp
			145			150				155				160	
Asp	Gln	Phe	Cys	Lys	Ile	Gln	Glu	Lys	Leu	Ala	Gln	Leu	Glu	Leu	Glu
			165					170					175		
Asn	Lys	Glu	Leu	Arg	Glu	Leu	Leu	Ser	Ile	Ser	Ser	Glu	Ser	Leu	Gln
			180					185					190		
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<210> 4853

<211> 1467

<212> DNA

<213> Homo sapiens

<400> 4853

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&lt;210&gt; 4854

&lt;211&gt; 311

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4854

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Arg	Lys	Val	Glu	Leu	Pro	Val	Pro	Thr	His	Arg	Arg	Pro	Val	Gln	Ala
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Trp	Val	Glu	Ser	Leu	Arg	Gly	Phe	Glu	Gln	Glu	Arg	Val	Gly	Leu	Ala
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Asp	Leu	His	Pro	Asp	Val	Phe	Ala	Thr	Ala	Pro	Arg	Leu	Asp	Ile	Leu
			85						90				95		
His	Gln	Val	Ala	Met	Trp	Gln	Lys	Asn	Phe	Lys	Arg	Ile	Ser	Tyr	Ala
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Lys	Thr	Lys	Thr	Arg	Ala	Glu	Val	Arg	Gly	Gly	Gly	Arg	Lys	Pro	Xaa
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			165					170					175		
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	275					280					285				
Pro	Tyr	Ser	Asp	Phe	Pro	Arg	Pro	Leu	Pro	His	Ala	Thr	Gln	Gly	Pro
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Ala	Ala	Thr	Pro	Tyr	His	Cys									
305					310										

&lt;210&gt; 4855

&lt;211&gt; 750

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4855

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&lt;210&gt; 4856

&lt;211&gt; 237

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4856

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		20						25					30		
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	50				55				60						
Thr	Gly	Phe	Gly	Thr	Thr	Gly	Thr	Ser	Thr	Gly	Leu	Gly	Thr	Gly	
65				70				75					80		
Leu	Gly	Thr	Gly	Leu	Gly	Phe	Gly	Gly	Phe	Asn	Thr	Gln	Gln	Gln	Gln
			85					90					95		
Gln	Gln	Thr	Thr	Leu	Gly	Gly	Leu	Phe	Ser	Gln	Pro	Thr	Gln	Ala	Pro
		100					105						110		
Thr	Gln	Ser	Asn	Gln	Leu	Ile	Asn	Thr	Ala	Ser	Ala	Leu	Ser	Ala	Pro
		115					120					125			
Thr	Leu	Leu	Gly	Asp	Glu	Arg	Asp	Ala	Ile	Leu	Ala	Lys	Trp	Asn	Gln
	130				135						140				
Leu	Gln	Ala	Phe	Trp	Gly	Thr	Gly	Lys	Gly	Tyr	Phe	Asn	Asn	Asn	Ile
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Pro	Pro	Val	Glu	Phe	Thr	Gln	Glu	Asn	Pro	Phe	Cys	Arg	Phe	Lys	Ala
			165					170					175		
Val	Gly	Tyr	Ser	Cys	Met	Pro	Ser	Asn	Lys	Asp	Glu	Asp	Gly	Leu	Val
		180					185						190		
Val	Leu	Val	Phe	Asn	Lys	Lys	Glu	Thr	Glu	Ile	Arg	Ser	Gln	Gln	Gln
	195					200						205			
Gln	Leu	Val	Glu	Ser	Leu	His	Lys	Val	Leu	Gly	Gly	Asn	Gln	Thr	Leu
	210				215						220				
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4042

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&lt;210&gt; 4858

&lt;211&gt; 269

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4858

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 35           40           45
Gln Ala Lys Glu Lys Glu Ile Glu Glu Leu Lys Ser Glu Arg Asp Thr
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Lys Asp Asn Glu Lys Glu Arg His Lys Leu Phe Gln Gly Tyr Glu Thr
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Glu Glu Arg Glu Glu Thr Glu Leu Ser Glu Lys Ile Lys Leu Glu Cys
100           105           110
Gln Pro Glu Leu Ser Glu Thr Ser Gln Thr Leu Pro Pro Lys Pro Phe
115           120           125
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130           135           140
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145           150           155           160
Lys Val Lys Thr Lys Thr Pro Lys His Ser Pro Ile Lys Glu Glu Pro
165           170           175
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180           185           190
Glu Thr Pro Glu Lys Pro Arg Ser Ser Val Asp Thr Pro Pro Arg Leu
195           200           205
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&lt;210&gt; 4859

&lt;211&gt; 689

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4859

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240

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 360  
 atattcaatc ccattccccc tctctccacc ctgcccact ttgatttaac cctttggctg  
 420  
 tgggctgagg cctcccaggg aagtgggtg ggggggtgt tgagaccccc tcagaccagc  
 480  
 acagagacct gtccttgctg agtctgcacc ctgcactccc tcccttgctt gtagatgttc  
 540  
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<210> 4860

<211> 173

<212> PRT

<213> Homo sapiens

<400> 4860

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Trp	Thr	Leu	Asp	Leu	Glu	Pro	Arg	Gly	Pro	Val	His	Ile	His	Pro	Thr
		20						25					30		
Arg	Val	Ser	Gly	Gly	Leu	Pro	Arg	Cys	Leu	Cys	Trp	Val	Ala	Val	Val
		35					40					45			
Val	Pro	Arg	Gly	Met	Glu	Cys	Pro	Gly	Leu	Leu	Gln	Glu	Leu	Ser	Thr
		50				55					60				
Gln	Gly	Gln	Gly	Glu	Pro	Arg	Glu	Lys	Arg	Pro	Gly	Leu	Leu	Ser	Phe
65				70					75					80	
Leu	Ile	Cys	Ser	Cys	Pro	Pro	Leu	Ser	Ser	Thr	Pro	Leu	Pro	Phe	Pro
			85						90					95	
Arg	Leu	Ser	Pro	Pro	Trp	Ala	Phe	Val	Cys	Phe	Gly	Arg	Cys	His	Leu
			100					105						110	
Thr	Arg	Thr	Leu	Ile	Phe	Asn	Pro	Ile	Pro	Leu	Pro	Pro	Thr	Leu	Pro
		115					120						125		
His	Phe	Asp	Leu	Ile	Leu	Trp	Leu	Trp	Ala	Glu	Ala	Ser	Gln	Gly	Ser
		130				135						140			
Trp	Val	Gly	Trp	Val	Leu	Arg	Pro	Pro	Gln	Thr	Ser	Thr	Glu	Thr	Cys
145					150					155					160
Pro	Cys	Ala	Val	Cys	Thr	Leu	His	Ser	Leu	Pro	Cys	Leu			
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<210> 4861

<211> 1622

<212> DNA

<213> Homo sapiens

<400> 4861

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120  
cggacaggcg ctgagcacct gtggctgacc cgacatctca gggacccatt tgtgaaggct  
180  
gcgaaggtgg agagtaccg gtgtcgaagc gccttcaagc tcctggaggt gaacgagagg  
240  
caccagattc tgcggcccgg ccttcgggtg ttagactgtg gggcagctcc tggggcctgg  
300  
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360  
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420  
cctgtgtacg tgactgaccc gagaacctca cagagaatcc tcgagggtgt tcctggcagg  
480  
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540  
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600  
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660  
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720  
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1320  
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1620  
aa  
1622

<210> 4862  
 <211> 260  
 <212> PRT  
 <213> Homo sapiens

<400> 4862  
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 1 5 10 15  
 Gly Tyr Leu Lys Leu Val Cys Val Ser Phe Gln Arg Gln Gly Phe His  
 20 25 30  
 Thr Val Gly Ser Arg Cys Lys Asn Arg Thr Gly Ala Glu His Leu Trp  
 35 40 45  
 Leu Thr Arg His Leu Arg Asp Pro Phe Val Lys Ala Ala Lys Val Glu  
 50 55 60  
 Ser Tyr Arg Cys Arg Ser Ala Phe Lys Leu Leu Glu Val Asn Glu Arg  
 65 70 75 80  
 His Gln Ile Leu Arg Pro Gly Leu Arg Val Leu Asp Cys Gly Ala Ala  
 85 90 95  
 Pro Gly Ala Trp Ser Gln Val Ala Val Gln Lys Val Asn Ala Ala Gly  
 100 105 110  
 Thr Asp Pro Ser Ser Pro Val Gly Phe Val Leu Gly Val Asp Leu Leu  
 115 120 125  
 His Ile Phe Pro Leu Glu Gly Ala Thr Phe Leu Cys Pro Ala Asp Val  
 130 135 140  
 Thr Asp Pro Arg Thr Ser Gln Arg Ile Leu Glu Val Leu Pro Gly Arg  
 145 150 155 160  
 Arg Ala Asp Val Ile Leu Ser Asp Met Ala Pro Asn Ala Thr Gly Phe  
 165 170 175  
 Arg Asp Leu Asp His Asp Arg Leu Ile Ser Leu Cys Leu Thr Leu Leu  
 180 185 190  
 Ser Val Thr Pro Asp Ile Leu Gln Pro Gly Gly Thr Phe Leu Cys Lys  
 195 200 205  
 Thr Trp Ala Gly Ser Gln Ser Arg Arg Leu Gln Arg Arg Leu Thr Glu  
 210 215 220  
 Glu Phe Gln Asn Val Arg Ile Ile Lys Pro Glu Ala Ser Arg Lys Glu  
 225 230 235 240  
 Ser Ser Glu Val Tyr Phe Leu Ala Thr Gln Tyr His Gly Arg Lys Gly  
 245 250 255  
 Thr Val Lys Gln  
 260

<210> 4863  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

<400> 4863  
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 120  
 accatcaacc ctgaggacga caggatcct ggccatgctg acctggctct ctatatcact  
 180



aggtttgacc tggagttgcc tgatggtaac ncggcagtcg ggggcgtcac ccagctgggc  
 240  
 ggggcctgct ccccaacctg gagctgcctc attaccgagg aacttggtt cgacctggga  
 300  
 gtcaccattg cccatgagat tgggcacagc ttcggcctgg agcacgacgg cgcgc  
 355

<210> 4864

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4864

Leu Gly Ala His Phe Arg Val His Leu Val Lys Met Val Ile Leu Thr  
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 Glu Pro Glu Gly Ala Pro Asn Ile Thr Ala Asn Leu Thr Ser Ser Leu  
 20 25 30  
 Leu Ser Val Cys Gly Trp Ser Gln Thr Ile Asn Pro Glu Asp Asp Thr  
 35 40 45  
 Asp Pro Gly His Ala Asp Leu Val Leu Tyr Ile Thr Arg Phe Asp Leu  
 50 55 60  
 Glu Leu Pro Asp Gly Asn Xaa Ala Val Arg Gly Val Thr Gln Leu Gly  
 65 70 75 80  
 Gly Ala Cys Ser Pro Thr Trp Ser Cys Leu Ile Thr Glu Asp Thr Gly  
 85 90 95  
 Phe Asp Leu Gly Val Thr Ile Ala His Glu Ile Gly His Ser Phe Gly  
 100 105 110  
 Leu Glu His Asp Gly Ala  
 115

<210> 4865

<211> 444

<212> DNA

<213> Homo sapiens

<400> 4865

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 ctcatcaaac accagcgcac ccacttgcc gagcggccct acaaattgtcc ccgttgccgc  
 120  
 aaggccttcg ccgacagctc ttacctgctt cgccaccagc gcaactcactc tggccagaag  
 180  
 ccctacaagt gcccacattg tggcaaggcc ttcggcgaca gctcctacct cctgcgacac  
 240  
 cagcgcaccc acagccacga gcggccctac agctgcaccg agtgccggcaa gtgctatagc  
 300  
 cagaactcgt ccctgcgcag ccacagagg gtgcacaccg gtcagaggcc cttcagctgt  
 360  
 ggcactctcg gcaagagctt ctcccagcgg tcggccctta tcccccatgc ccgcagccac  
 420  
 gcccgggaga agcccttcac gcgt  
 444

<210> 4866

<211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 4866  
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 Gln Ser Ser Asp Leu Ile Lys His Gln Arg Thr His Thr Gly Glu Arg  
 20 25 30  
 Pro Tyr Lys Cys Pro Arg Cys Gly Lys Ala Phe Ala Asp Ser Ser Tyr  
 35 40 45  
 Leu Leu Arg His Gln Arg Thr His Ser Gly Gln Lys Pro Tyr Lys Cys  
 50 55 60  
 Pro His Cys Gly Lys Ala Phe Gly Asp Ser Ser Tyr Leu Leu Arg His  
 65 70 75 80  
 Gln Arg Thr His Ser His Glu Arg Pro Tyr Ser Cys Thr Glu Cys Gly  
 85 90 95  
 Lys Cys Tyr Ser Gln Asn Ser Ser Leu Arg Ser His Gln Arg Val His  
 100 105 110  
 Thr Gly Gln Arg Pro Phe Ser Cys Gly Ile Cys Gly Lys Ser Phe Ser  
 115 120 125  
 Gln Arg Ser Ala Leu Ile Pro His Ala Arg Ser His Ala Arg Glu Lys  
 130 135 140  
 Pro Phe Thr Arg  
 145

<210> 4867  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 4867  
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 120  
 ccttctccac atccccattc tggtaggaaa agtcacccat gccaggatat ccccgagcca  
 180  
 gagacagccc caggggggtgc tgcctggaga cagccgggat agcttcagtc tcttgacct  
 240  
 gacacgggct gcaccaccag acaatgggca ttttcaggcc agactctggc acaaagagaa  
 300  
 ggggcagggc caaggctatg gccacaagc tcttcagcag ctgagatggg tgcaggaggt  
 360  
 agcgctctac tcccatagct cccactgta t  
 391

<210> 4868  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 4868  
 Met Gly Val Glu Arg Tyr Leu Leu His Pro Ser Gln Leu Leu Arg Ser

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      1             5             10             15
Leu Trp Ala Ile Ala Leu Ala Leu Pro Leu Leu Phe Val Pro Glu Ser
      20             25             30
Gly Leu Lys Met Pro Ile Val Trp Trp Cys Ser Pro Cys Gln Gly Gln
      35             40             45
Glu Thr Glu Ala Ile Pro Ala Val Ser Arg Gln His Pro Leu Gly Leu
      50             55             60
Ser Leu Gly Trp Gly Tyr Pro Gly Met Gly Asp Phe Ser Tyr Gln Asn
      65             70             75             80
Gly Asp Val Glu Lys Glu Ala Asp Val Pro Arg Leu Val Ala Ser Phe
      85             90             95
Cys Pro Ser His Pro Pro Thr Lys Asp Met Arg Leu Leu Pro Ser Asn
      100            105            110
Leu Leu Gly Ala Ser Pro Asp Arg Thr Pro Ser Gly Ile
      115            120            125

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&lt;210&gt; 4869

&lt;211&gt; 418

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4869

```

cccggaaga gggcgcccg ccataaatgc ggaacaggtt aaatggcgat gggaatagga
60
tgggaactca atggtgttgc tacctttgga tggactcgga ggcagcccag cttcctggga
120
caggactgca cggactgcct ggggaggggt ctttggcccc ccggttctctg caggggggct
180
cggggaggcc ctgtgagcag ttggtcacag gtgggtccca ttcgatgcga tcctgttcct
240
ccccaacagc cctggagaag ggggacgttg cctgctgttg ctgcggtctgt ttcctggcc
300
tgtgagaggc ggggccagag tggccgttgg gaatctgggt gttgcaaggt gaccacaaac
360
agctctcttg gggaggagga ggaaaatgca attgattttc aggagccttc tgaggtcg
418

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&lt;210&gt; 4870

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4870

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Met Ala Met Gly Ile Gly Trp Glu Leu Asn Gly Val Ala Thr Phe Gly
      1             5             10             15
Trp Thr Arg Arg Gln Pro Ser Phe Leu Gly Gln Asp Cys Thr Asp Cys
      20             25             30
Leu Gly Arg Gly Leu Trp Pro Pro Gly Ser Cys Arg Gly Ala Arg Gly
      35             40             45
Gly Pro Val Ser Ser Trp Ser Gln Val Gly Pro Ile Arg Cys Asp Pro
      50             55             60
Val Pro Pro Gln Gln Pro Trp Arg Arg Gly Thr Leu Pro Ala Val Ala
      65             70             75             80
Ala Ala Val Phe Leu Ala Cys Glu Arg Arg Gly Gln Ser Gly Arg Trp

```

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<210> 4871
<211> 1354
<212> DNA
<213> Homo sapiens
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4051

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 1320  
 ctctacgcag ttgcgacccg aggcgagcaa caac  
 1354

<210> 4872  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 4872  
 Gly Arg Lys Arg Leu Gln Ser Cys Trp Ala Ala Pro Arg Ser Val Gln  
 1 5 10 15  
 Gln Pro Leu Arg Pro Cys Cys Cys Ser Ala Ala Trp Gln Ser Pro Ala  
 20 25 30  
 His Ala Pro Ser Glu Ser Gly Gly His Leu Pro Val Pro Ala Ser Pro  
 35 40 45  
 Val Pro Ala Pro Ala Ala Ala Trp Ser Val Ser Thr Ala Ala Ala Ala  
 50 55 60  
 Pro Ala Ala Cys Arg Pro Ala Ala Gly Ala Gly Pro Cys Gln Gly His  
 65 70 75 80  
 Gln Gly Leu Pro Gly Ser Pro Leu Pro Glu  
 85 90

<210> 4873  
 <211> 948  
 <212> DNA  
 <213> Homo sapiens

<400> 4873  
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 agattgcctt gatagaggac tgatgttttt cactgatgag atgggtgacca aaagccagcc  
 120  
 ccactgtgag ttgaactctt tcgtgttgac cggccactct ccgtgctctg gatgatgtcg  
 180  
 gaacacgacc tggccgatgt ggttcaaatt gcagtgggaag acctgagccc tgaccacca  
 240  
 ggtacagagc tgtgggacag tgttgttttg gagaatcatg tagtgacaga tgaagacgaa  
 300  
 cctgctttga aacgccagcg actagaaatc aattgccagg atccatctat aaagtcattc  
 360  
 ctgtattcca tcaaccagac aatctgcttg cggttgata gcattgaagc caaattgcaa  
 420  
 gccctggagg ctacttgtaa atccttagaa gaaaagctgg atctgggtcac gaacaagcag  
 480  
 cacagcccca tccaggttcc catggtggcc ggctcccctc tcaggacaac ccagatgtgc  
 540  
 aacaaagtgc gatggtaaga acagaccagg gtgccggggc cttcaggtca cttggggaga  
 600  
 agcgcgtcac ctctcgcgcc atgccgcag cttagtggct cagtttgctg gagatgcgca  
 660  
 gtgtctgcct cagcagcttc agcagtttct aactaaagct gacttttagtt agaccgaaac  
 720

cgaacacatg gcacctgcc aggatgacct gaagtcaccc tcacctttcc tttccacata  
 780  
 aagccggccc atacaccttt tctttggaac taaccaccca gatcttagaa gatgtacacg  
 840  
 tgcttctttc ctttttctta ctctacctgg ctagtcttta gatatgtttt tcttcgtatg  
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 948

<210> 4874

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4874

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Asp	Leu	Ser	Pro	Asp	His	Pro	Gly	Thr	Glu	Leu	Trp	Asp	Ser	Val	Val
			20					25					30		
Leu	Glu	Asn	His	Val	Val	Thr	Asp	Glu	Asp	Glu	Pro	Ala	Leu	Lys	Arg
		35					40					45			
Gln	Arg	Leu	Glu	Ile	Asn	Cys	Gln	Asp	Pro	Ser	Ile	Lys	Ser	Phe	Leu
	50					55					60				
Tyr	Ser	Ile	Asn	Gln	Thr	Ile	Cys	Leu	Arg	Leu	Asp	Ser	Ile	Glu	Ala
65				70						75				80	
Lys	Leu	Gln	Ala	Leu	Glu	Ala	Thr	Cys	Lys	Ser	Leu	Glu	Glu	Lys	Leu
			85						90					95	
Asp	Leu	Val	Thr	Asn	Lys	Gln	His	Ser	Pro	Ile	Gln	Val	Pro	Met	Val
			100						105					110	
Ala	Gly	Ser	Pro	Leu	Arg	Thr	Thr	Gln	Met	Cys	Asn	Lys	Val	Arg	Trp
	115						120						125		

<210> 4875

<211> 1255

<212> DNA

<213> Homo sapiens

<400> 4875

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 120  
 tggacgcagt tttagaaaga gcgttttcgc tacgtaaagc acattcgata aaggatatgg  
 180  
 aaaatacttt gcagctggtg agaaatatca tacctcctct gtcttccaca aagcaciaag  
 240  
 ggcaagatgg aagaataggc gtagttggag gctgtcagga gtacactgga gcccacatatt  
 300  
 ttgcagcaat ctacagctctc aaagtgggag cagacttgct ccacgtgttc tgtgccagtg  
 360  
 cggccgcacc tgtgattaag gcctacagcc cggagctgat cgtccacca gttcttgaca  
 420  
 gccccaatgc tgttcatgag gtggagaagt ggctgccccg gctgcatgct cttgtcgtag  
 480

gacctggcctt gggtagagat gatcgccac ccagttcttg acagcccaa tgctgttcat  
 540  
 gaggtggaga agtggctgcc cgggctgcat gctcttctcg taggaactgg cttgggtaga  
 600  
 gatgatgctc ttctcagaaa tgtccagggc attttggaag tgtcaaaggc cagggacatc  
 660  
 cctgttgtca tcgacgcgga tggcctgtgg ctggctgctc agcagccggc cctcatccat  
 720  
 ggctaccgga aggtctgtct cactcccaac cacgtggagt tcagcagact gtatgacgct  
 780  
 gtgctcagag gccctatgga cagcgatgac agccatggat ctgtgctaag actcagccaa  
 840  
 gccctgggca acgtgacggt ggtccagaaa ggagagcgcg acatcctctc caacggccag  
 900  
 cagggtcctt tgctcagcca ggaaggcagc agcgcaggt gtggagggca aggggacctc  
 960  
 ctgtcgggct ccttggcggt cctggtacac tgggcgctcc ttgctggacc acagaaaaca  
 1020  
 aatgggtcca gccctctcct ggtggccgct tttggcgctt gctctctcac caggcagtgc  
 1080  
 aaccaccaag ccttcagaa gcacggtcgc tccaccacca cctccgacat gatcgccgag  
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 1200  
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 1255

<210> 4876

<211> 230

<212> PRT

<213> Homo sapiens

<400> 4876

Leu	Ala	Trp	Val	Glu	Met	Ile	Val	His	Pro	Val	Leu	Asp	Ser	Pro	Asn
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Ala	Val	His	Glu	Val	Glu	Lys	Trp	Leu	Pro	Arg	Leu	His	Ala	Leu	Val
		20						25				30			
Val	Gly	Thr	Gly	Leu	Gly	Arg	Asp	Asp	Ala	Leu	Leu	Arg	Asn	Val	Gln
		35				40						45			
Gly	Ile	Leu	Glu	Val	Ser	Lys	Ala	Arg	Asp	Ile	Pro	Val	Val	Ile	Asp
	50					55					60				
Ala	Asp	Gly	Leu	Trp	Leu	Val	Ala	Gln	Gln	Pro	Ala	Leu	Ile	His	Gly
	65					70				75				80	
Tyr	Arg	Lys	Ala	Val	Leu	Thr	Pro	Asn	His	Val	Glu	Phe	Ser	Arg	Leu
		85						90					95		
Tyr	Asp	Ala	Val	Leu	Arg	Gly	Pro	Met	Asp	Ser	Asp	Asp	Ser	His	Gly
		100						105					110		
Ser	Val	Leu	Arg	Leu	Ser	Gln	Ala	Leu	Gly	Asn	Val	Thr	Val	Val	Gln
		115				120					125				
Lys	Gly	Glu	Arg	Asp	Ile	Leu	Ser	Asn	Gly	Gln	Gln	Val	Leu	Val	Cys
	130					135					140				
Ser	Gln	Glu	Gly	Ser	Ser	Arg	Arg	Cys	Gly	Gly	Gln	Gly	Asp	Leu	Leu
	145				150					155				160	
Ser	Gly	Ser	Leu	Gly	Val	Leu	Val	His	Trp	Ala	Leu	Leu	Ala	Gly	Pro

[illegible]

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<210> 4877
<211> 1182
<212> DNA
<213> Homo sapiens
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<400> 4877
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120
gttcaatgaa tgcgtgcgga atgaatgaac gactctagtg aaagagactc caatgacgca
180
ggccgggatt tgcggacacg agccccgcgc cgcaagcat .tctggggatt gtagtttctc
240
cgtgacgcgg tgactcgcag agcactgacg cactctgcgc ccggaggaca gagcggcccc
300
gtcgccggca tggtttcttc gtcttctgctc agccggcggg aggcagccag tccaggcgcc
360
cgctagcttc ggccggcgacc cagacgggga aagcgggaag aatgtcgcgt gcaagcaggc
420
agctgggtgt gaagaatggc ggtgagccat tcagtgaagg agcggaccat ctctgagaac
480
agcctgatca tcctactgca gggcctccag ggccgggtaa ccactgtgga cctgcgggat
540
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<212> PRT  
<213> Homo sapiens

<400> 4878  
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Phe Met Asn Ile Arg Leu Ala Lys Val Thr Tyr Thr Asp Arg Trp Gly  
50 55 60  
His Gln Val Lys Leu Asp Asp Leu Phe Val Thr Gly Arg Asn Val Arg  
65 70 75 80  
Tyr Val His Ile Pro Asp Asp Val Asn Ile Thr Ser Thr Ile Glu Gln  
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Gln Leu Gln Ile Ile His Arg Val Arg Asn Phe Gly Gly Lys Gly Gln  
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&lt;210&gt; 4880

&lt;211&gt; 202

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4880

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Ala Thr Ala Ser Gly Pro His Val Lys Ser His Leu Thr Arg Val Val
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Thr Thr Val Leu Phe Trp Gly Phe Ser Lys Ala Ser Pro Val Val Leu
      65      70      75      80
Arg Gly His Ser Glu Gln Ala Asn Thr Ala Arg Val Thr His Tyr Thr
      85      90      95
Gln Arg Lys Asp Asn Glu Gln Met Ala Ile Val Glu Asn Ser Val Val
      100      105      110
Cys Phe Ser Asn Ala Thr Tyr Phe Ser Arg Gln Val Ile Leu Pro Met
      115      120      125
Met Thr Ser Ala Thr Lys Leu Arg Ala Arg Gly Leu Pro Met Arg Leu
      130      135      140
Val Glu Ser Asn His Val Cys Ser Glu Ala Ser Gly Pro Ser Arg Pro
      145      150      155      160
Cys His Arg Pro Glu His Arg Thr Val Ile Met Gln Arg Ala Val Thr
      165      170      175
Glu Ala Gly Val Ser Val Gly Gly Gly Glu Glu Gly Thr Ser Ala Phe
      180      185      190
Tyr Ile Arg Ser Glu Ala Thr Val Arg Lys
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&lt;210&gt; 4881

&lt;211&gt; 1333

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4881

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&lt;210&gt; 4882

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4882

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Arg	Glu	Ala	Thr	Gly	Val	Glu	Asn	Arg	Val	Thr	Ser	Pro	Leu	Pro	Pro
			20					25					30		
Leu	Pro	Phe	Leu	Pro	Ser	Gln	Pro	Leu	Gly	Phe	Gly	Tyr	Met	Thr	Gln
		35				40					45				
Gln	Leu	Met	Asn	Leu	Ala	Gly	Gly	Ala	Val	Val	Leu	Ala	Leu	Glu	Gly
	50					55				60					
Gly	His	Asp	Leu	Thr	Ala	Ile	Cys	Asp	Ala	Ser	Glu	Ala	Cys	Val	Ala
	65				70				75					80	
Ala	Leu	Leu	Gly	Asn	Arg	Val	Ser	Arg	Leu	Pro	Pro	Pro	Ser	Met	Leu
			85					90						95	
Leu	Ser	Gly	Arg												
			100												

&lt;210&gt; 4883

&lt;211&gt; 1371

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4883

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 240  
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<210> 4884<211> 410

<212> PRT

<213> Homo sapiens

<400> 4884

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		20					25					30			
Leu	Arg	Leu	Leu	Asn	Phe	Gln	His	Asn	Phe	Ile	Thr	Arg	Ile	Gln	Asn
	35					40						45			

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Ile Ser Asn Leu Gln Lys Leu Ile Ser Leu Asp Leu Tyr Asp Asn Gln
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Ile Glu Glu Ile Ser Gly Leu Ser Thr Leu Arg Cys Leu Arg Val Leu
65          70          75          80
Leu Leu Gly Lys Asn Arg Ile Lys Lys Ile Ser Asn Leu Glu Asn Leu
      85          90          95
Lys Ser Leu Asp Val Leu Asp Leu His Gly Asn Gln Ile Thr Lys Ile
      100         105         110
Glu Asn Ile Asn His Leu Cys Glu Leu Arg Val Leu Asn Leu Ala Arg
      115         120         125
Asn Phe Leu Ser His Val Asp Asn Leu Asn Gly Leu Asp Ser Leu Thr
      130         135         140
Glu Leu Asn Leu Arg His Asn Gln Ile Thr Phe Val Arg Asp Val Asp
145         150         155         160
Asn Leu Pro Cys Leu Gln His Leu Phe Leu Ser Phe Asn Asn Ile Ser
      165         170         175
Ser Phe Asp Ser Val Ser Cys Leu Ala Asp Ser Ser Ser Leu Ser Asp
      180         185         190
Ile Thr Phe Asp Gly Asn Pro Ile Ala Gln Glu Ser Trp Tyr Lys His
      195         200         205
Thr Val Leu Gln Asn Met Met Gln Leu Arg Gln Leu Asp Met Lys Arg
      210         215         220
Ile Thr Glu Glu Glu Arg Arg Met Ala Ser Val Leu Ala Lys Lys Glu
225         230         235         240
Glu Glu Lys Lys Arg Glu Ser His Lys Gln Ser Leu Leu Lys Glu Lys
      245         250         255
Lys Arg Leu Thr Ile Asn Asn Val Ala Arg Gln Trp Asp Leu Gln Gln
      260         265         270
Arg Val Ala Asn Ile Ala Thr Asn Glu Asp Arg Lys Asp Ser Asp Ser
      275         280         285
Pro Gln Asp Pro Cys Gln Ile Asp Gly Ser Thr Leu Ser Ala Phe Pro
      290         295         300
Glu Glu Thr Gly Pro Leu Asp Ser Gly Leu Asn Asn Ala Leu Gln Gly
305         310         315         320
Leu Ser Val Ile Asp Thr Tyr Leu Val Glu Val Asp Gly Asp Thr Leu
      325         330         335
Ser Leu Tyr Gly Ser Gly Ala Leu Glu Ser Leu Asp Arg Asn Trp Ser
      340         345         350
Val Gln Thr Ala Gly Met Ile Thr Thr Val Ser Phe Thr Phe Ile Glu
      355         360         365
Phe Asp Glu Ile Val Gln Val Leu Pro Lys Leu Lys Ile Lys Phe Pro
      370         375         380
Asn Ser Leu His Leu Lys Phe Lys Glu Thr Asn Leu Val Met Gln Gln
385         390         395         400
Phe Asn Ala Leu Ala Gln Leu Arg Arg Tyr
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&lt;210&gt; 4885

&lt;211&gt; 489

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4885

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<210> 4886

<211> 77

<212> PRT

<213> Homo sapiens

<400> 4886

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			20				25					30			
Val	Asn	Phe	Thr	Arg	Xaa	Glu	Trp	Arg	Glu	Leu	Asp	Leu	Ala	Gln	Arg
		35				40					45				
Val	Leu	Tyr	Arg	Asp	Val	Met	Leu	Glu	Asn	Tyr	Arg	Asn	Leu	Val	Ser
	50				55				60						
Leu	Val	Gly	Phe	Pro	Phe	Ser	Lys	Pro	Gly	Ile	Ile	Ser			
65				70					75						

<210> 4887

<211> 2271

<212> DNA

<213> Homo sapiens

<400> 4887

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<210> 4888

<211> 429

<212> PRT

<213> Homo sapiens

<400> 4888

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			20					25					30		
Ser	Ala	His	Tyr	His	Val	Asn	Phe	Ser	Gln	Ala	Ile	Ser	Gln	Asp	Val
		35					40					45			
Asn	Leu	His	Glu	Ala	Ile	Leu	Leu	Cys	Pro	Asn	Asn	Thr	Phe	Arg	Arg
	50					55				60					
Asp	Pro	Thr	Ala	Arg	Thr	Ser	Gln	Ser	Gln	Glu	Pro	Phe	Leu	Gln	Leu
65					70					75				80	
Asn	Ser	His	Thr	Thr	Asn	Pro	Glu	Gln	Thr	Leu	Pro	Gly	Thr	Asn	Leu
			85					90					95		
Thr	Gly	Phe	Leu	Ser	Pro	Val	Asp	Asn	His	Met	Arg	Asn	Leu	Thr	Ser
			100					105					110		
Gln	Asp	Leu	Leu	Tyr	Asp	Leu	Asp	Ile	Asn	Ile	Phe	Asp	Glu	Ile	Asn
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Leu	Met	Ser	Leu	Ala	Thr	Glu	Asp	Asn	Phe	Asp	Pro	Ile	Asp	Val	Ser
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Ser	His	Asn	Asn	Thr	Ser	Val	Ile	Lys	Ser	Asn	Ser	Ser	His	Ser	Val
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Cys	Asp	Glu	Gly	Ala	Ile	Gly	Tyr	Cys	Thr	Asp	His	Glu	Ser	Ser	Ser
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His	His	Asp	Leu	Glu	Gly	Ala	Val	Gly	Gly	Tyr	Tyr	Pro	Glu	Pro	Ser
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Lys	Leu	Cys	His	Leu	Asp	Gln	Ser	Asp	Ser	Asp	Phe	His	Gly	Asp	Leu
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Ala	Pro	Glu	Ser	Thr	Ser	Asp	Xaa	Phe	Pro	Xaa	Ala	Gly	Lys	Ser	Gln
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Lys	Ile	Arg	Ser	Arg	Tyr	Leu	Glu	Asp	Pro	Asp	Arg	Thr	Leu	Ser	Arg
		260						265					270		
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Glu Thr Leu Lys Arg Glu Gln Ala Gln Cys Asn Lys Ala Ile Asn Ile
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Met Lys Gln Lys Leu His Asp Leu Tyr His Asp Ile Phe Ser Arg Leu
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&lt;210&gt; 4889

&lt;211&gt; 619

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4889

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619

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&lt;210&gt; 4890

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4890

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Pro Ser Pro Thr Leu Phe Pro Asp Ser Gln Gln Thr Asp Val Gly Ser			
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Arg Thr Asp Pro Phe Thr His Thr His Thr His Ser His Ser Phe Ala			
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His Ile His Ser Cys Thr His Ala Met Tyr			
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&lt;210&gt; 4891

&lt;211&gt; 1998

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4891

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1080

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<210> 4892

<211> 216

<212> PRT

<213> Homo sapiens

<400> 4892

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Ile	Lys	Arg	Gly	Arg	Gln	Ala	Glu	Glu	Cys	Ala	His	Arg	Gly	Ser	
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Pro	Leu	Pro	Lys	Lys	Arg	Lys	Gly	Arg	Pro	Pro	Gly	His	Ile	Leu	Ser
		50				55					60				
Ser	Asp	Arg	Ala	Ala	Ala	Gly	Met	Val	Trp	Lys	Pro	Lys	Ser	Cys	Glu
65				70						75				80	
Pro	Ile	Arg	Arg	Glu	Gly	Pro	Lys	Trp	Asp	Pro	Ala	Arg	Leu	Asn	Glu
			85					90						95	
Ser	Thr	Thr	Phe	Val	Leu	Gly	Ser	Arg	Ala	Asn	Lys	Ala	Leu	Gly	Met
			100					105					110		
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	115						120					125			
Tyr	Ala	Ala	Asp	Pro	Gln	Asp	Lys	His	Trp	Leu	Ala	Glu	Gln	His	His
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Met	Arg	Ala	Thr	Gly	Gly	Lys	Met	Ala	Tyr	Leu	Leu	Ile	Glu	Glu	Asp
145						150					155				160
Ile	Arg	Asp	Leu	Ala	Ala	Ser	Asp	Asp	Tyr	Arg	Gly	Cys	Leu	Asp	Leu
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Lys	Leu	Glu	Glu	Leu	Lys	Ser	Phe	Val	Leu	Pro	Ser	Trp	Met	Val	Glu
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<211> 5212
<212> DNA
<213> Homo sapiens
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1020

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<210> 4894

<211> 399

<212> PRT

<213> Homo sapiens

<400> 4894

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Trp  Thr  Gly  Arg  Gln  Lys  Ser  Ser  Ala  Asp  His  Arg  Lys  Ser  Tyr  Glu
      325              330              335
Phe  Glu  Asp  Leu  Leu  Gln  Ser  Ser  Ser  Glu  Ser  Ser  Arg  Val  Asp  Trp
      340              345              350
Tyr  Ala  Gln  Thr  Lys  Leu  Gly  Leu  Thr  Arg  Thr  Leu  Ser  Glu  Glu  Asn
      355              360              365
Val  Tyr  Glu  Asp  Ile  Leu  Asp  Pro  Pro  Met  Lys  Glu  Asn  Pro  Tyr  Glu
      370              375              380
Asp  Ile  Glu  Leu  His  Gly  Arg  Cys  Leu  Gly  Lys  Lys  Xaa  Val  Ser
385      390              395

```

&lt;210&gt; 4895

&lt;211&gt; 1087

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4895

```

gcggaatgtc aactattcaa catggaggcg gaggtcgata agctggaact gatgttccag
60
aaagctgagt ctgatctgga ttacattcaa tacaggctgg aatatgaaat caagactaat
120
catcctgatt cagcaagtga gaaaaatcca gttacactct taaaggaatt gtcagtgata
180
aagtctcgat atcaaaacttt gtatgcccgcc tttaaaccag ttgctgttga gcagaaagag
240
agtaagagcc gcatttgtgc tactgtgaaa aagactatga atatgataca aaaactacag
300
aagcaaacag acctggagggt aatgctttca gttgacagct gtcaccactg actaaagaag
360

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agaaaactgc ggcagagcaa ttcaaatttc acatgccaga tttatgaaga aatggacttg  
 420  
 gaaaggaaat tctaacagag aagagcttaa ttccggagaa atttaggaag atgtcttggt  
 480  
 aacccttgat gtctagagat tgggggctgg tgaagggggt ttggcttcaa tgactggata  
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 660  
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 720  
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 780  
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 840  
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 1020  
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 1080  
 ttccttc  
 1087

&lt;210&gt; 4896

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4896

Met	Glu	Ala	Glu	Val	Asp	Lys	Leu	Glu	Leu	Met	Phe	Gln	Lys	Ala	Glu
1				5				10					15		
Ser	Asp	Leu	Asp	Tyr	Ile	Gln	Tyr	Arg	Leu	Glu	Tyr	Glu	Ile	Lys	Thr
		20						25					30		
Asn	His	Pro	Asp	Ser	Ala	Ser	Glu	Lys	Asn	Pro	Val	Thr	Leu	Leu	Lys
		35					40					45			
Glu	Leu	Ser	Val	Ile	Lys	Ser	Arg	Tyr	Gln	Thr	Leu	Tyr	Ala	Arg	Phe
	50					55				60					
Lys	Pro	Val	Ala	Val	Glu	Gln	Lys	Glu	Ser	Lys	Ser	Arg	Ile	Cys	Ala
65					70				75					80	
Thr	Val	Lys	Lys	Thr	Met	Asn	Met	Ile	Gln	Lys	Leu	Gln	Lys	Gln	Thr
			85					90						95	
Asp	Leu	Glu	Val	Met	Leu	Ser	Val	Asp	Ser	Cys	His	His			
			100					105							

&lt;210&gt; 4897

&lt;211&gt; 1733

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4897

nactttgttg cccgggctgg agtgcagtgg cgcgatctca gctcactgca gcctctgcct  
60  
ctcaggttca agcaattctc ctgcttcagc ctcccaagta gctgggatta caggcgccca  
120  
ccacgatgcc cagctaattt ttgtattttc agtaaagaca gggtttcacc atgttggtta  
180  
ggctgggtctc aaactcctga tnccacccgc ctcggcctcc caaagtgtg ggattacagg  
240  
cgtgaaccac cgcgcccggg tgacctttgg aacttctgac cgactggctt caagttgagg  
300  
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360  
acatttactg gtttattata aaggatatta taaaagatac agataaagag atgcataggg  
420  
tgaggtatga aggaagggca tggagcttcc tgtgccctcc ctgggcgcac cacccttcta  
480  
gaacctctgt atgttcagtt atctggaagc tctctgaatc cagtccctt ggtttttatg  
540  
gaagcttcat gacagcagca ttccttctag caggatatgg ggtgggaccg tctctggaat  
600  
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660  
aaaggaaggg caggagggtta gagtgattgt ctctgaggc ctgacacacc caatgttgta  
720  
acaaaagagt gtaacaaggg ctgtgggagt tatgagccag gaactgtgga cgaaaatgaa  
780  
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840  
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900  
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960  
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1260  
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accaacacag agggtcaggg gaagcgtcta tggggagggtg actcatgtac tgagtctga  
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1440  
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1560  
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1620

agctcctatt ttaggaggtg gcctctggct gtgtctaata gagttgacaa gaataaaaagt  
1680  
agaaggagaa gaccaaggag gaggacgcca ggtgagagca ggtgggtggtc agg  
1733

<210> 4898  
<211> 92  
<212> PRT  
<213> Homo sapiens

<400> 4898  
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Gln Pro Leu Pro Leu Arg Phe Lys Gln Phe Ser Cys Phe Ser Leu Pro  
20 25 30  
Ser Ser Trp Asp Tyr Arg Arg Pro Pro Arg Cys Pro Ala Asn Phe Cys  
35 40 45  
Ile Phe Ser Lys Asp Arg Val Ser Pro Cys Trp Leu Gly Trp Ser Gln  
50 55 60  
Thr Pro Asp Xaa Thr Arg Leu Gly Leu Pro Lys Cys Trp Asp Tyr Arg  
65 70 75 80  
Arg Glu Pro Pro Arg Pro Gly Asp Leu Trp Asn Phe  
85 90

<210> 4899  
<211> 444  
<212> DNA  
<213> Homo sapiens

<400> 4899  
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120  
gtggcggctc tggaggcagc aacgggggtcc tttgggggtg gtgggagttc tgctggattc  
180  
aggtggaggt gaacatctgc cgttcccaca gccctgcgtg ccccccaaa tgctgctggc  
240  
ccacagaatc agccagtgcc acggcccccac cacagccagg cttggccctg tcagcggcca  
300  
gcatcccgag ggccagggtc cgagtgtcct caccaaggag gctcttggcg tcgctgtgcc  
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420  
attaaactga tggtcaggct ggga  
444

<210> 4900  
<211> 118  
<212> PRT  
<213> Homo sapiens

<400> 4900  
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Ser Lys Pro Gln Gln Leu Trp Arg Arg Val Arg Glu Trp Arg Leu Trp			
20	25	30	
Arg Gln Gln Arg Gly Pro Leu Gly Trp Val Gly Val Leu Leu Asp Ser			
35	40	45	
Gly Gly Gly Glu His Leu Pro Phe Pro Gln Pro Cys Val His Pro Gln			
50	55	60	
Met Leu Leu Ala His Arg Ile Ser Gln Cys His Gly Pro Thr Thr Ala			
65	70	75	80
Arg Leu Gly Pro Val Ser Gly Gln His Pro Glu Gly Gln Gly Pro Ser			
85	90	95	
Val Leu Thr Lys Glu Ala Leu Gly Val Ala Val Pro Ala Pro Met Gly			
100	105	110	
Leu Leu Leu Gly Arg Gly			
115			

&lt;210&gt; 4901

&lt;211&gt; 1520

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4901

```

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attcccagcc agaacggagc ttaagccggg caggcgatgc gaatgacgga gtagcgagct
120
gcacggcggc gtgctgcgct gttgaggacg ctgtcccgcg cgctcccagg ccgccccgag
180
gcttggggtc ttcgaaggat aatcggcgcc cggggccgaa cagcgggggc acacggggcg
240
ctgccgaagt gcaaggccac ggccagagct cgagcccagc gcgctgtctg gagtcgtagg
300
ttggcgccgt ttggggtcgg ggtctgaggg ttgggcgctg cctggggcca gccgagatcg
360
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420
agcgggcagc gcgtggacgt caagggtggtg atgctgggca aggagtacgt gggcaagact
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600
tgggacacag caggctctga gcgctatgag gccatgagta gaatctacta tcgggggtgcc
660
aaggctgcc a tcgtctgcta tgacctaca gacagcagca gctttgagcg agcaaagtcc
720
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780
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840
tatgcagaca gtagctgctc ctcagccctt tgggggggtg ggggtgtgtg ctgtctgggt
900
ggatcaaaga aaatagggac tgccttggtg gccagggcaa ggtgctctag gaggtcttcc
960

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 1020  
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 1080  
 agctctttga aacatccagc aagacaggcc agagtgtggg tgagtgtgtg gctggagcct  
 1140  
 cacagcagga acatgcaggg gcaccagagg aagctgaata gggcacagag ggctgggtca  
 1200  
 ctgggagatc ccagggtctac tggcattggg ccctcgctga tcatcatttt tcctgccaga  
 1260  
 cgagctcttc cagaaagtgg cagaggatta cgtcagtgtg gctgccttcc aggtgatgac  
 1320  
 agaggacaag ggcgtggatc tgggccagaa gccaaacccc tacttctaca gctgttgtca  
 1380  
 tcactgagtc agcactcacc tggcctgggg gaattaaagg aattccccgt aagcgtggac  
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 1500  
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 1520

&lt;210&gt; 4902

&lt;211&gt; 184

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4902

Met Ser Gly Gln Arg Val Asp Val Lys Val Val Met Leu Gly Lys Glu  
 1 5 10 15  
 Tyr Val Gly Lys Thr Ser Leu Val Glu Arg Tyr Val His Asp Arg Phe  
 20 25 30  
 Leu Val Gly Pro Tyr Gln Asn Thr Ile Gly Ala Ala Phe Val Ala Lys  
 35 40 45  
 Val Met Ser Val Gly Asp Arg Thr Val Thr Leu Gly Ile Trp Asp Thr  
 50 55 60  
 Ala Gly Ser Glu Arg Tyr Glu Ala Met Ser Arg Ile Tyr Tyr Arg Gly  
 65 70 75 80  
 Ala Lys Ala Ala Ile Val Cys Tyr Asp Leu Thr Asp Ser Ser Ser Phe  
 85 90 95  
 Glu Arg Ala Lys Phe Trp Val Lys Glu Leu Arg Ser Leu Glu Glu Gly  
 100 105 110  
 Cys Gln Ile Tyr Leu Cys Gly Thr Lys Ser Asp Leu Leu Glu Glu Asp  
 115 120 125  
 Arg Arg Arg Arg Val Asp Phe His Asp Val Gln Asp Tyr Ala Asp  
 130 135 140  
 Ser Ser Cys Ser Ser Ala Leu Trp Gly Val Gly Val Cys Gly Cys Leu  
 145 150 155 160  
 Gly Gly Ser Lys Lys Ile Gly Thr Ala Leu Ala Ala Arg Ala Arg Cys  
 165 170 175  
 Ser Arg Arg Ser Ser Trp Pro Pro  
 180

&lt;210&gt; 4903

&lt;211&gt; 1064

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4903

```

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cttcggaaaag tctcatccac cccacatcgc cctctttagg aagtcactta atgttgggct
120
tcattattcc cacatccctt tccttactac ttgcctgcac ttcttgagaa aaagactgca
180
gaaaggagag gtgggggcttt cagtagaaac aagcaaaccg cagtccctgt ggggggactc
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360
gtgagtaggt accatcgagc tctgcttcag ctgcgggggc tggatccgna gtctgccctc
420
tccgttacct aatctcggac ctcagggccc nggccctcac gcctgnaaca agaaaacata
480
ttgcatacca ccagacaga ctgtataaac aatctagctg cttgtctcct tcagatggag
540
cccgtgaact acgaacgagt gagagaatat agtcagaaag tcttggaacg acagcctgat
600
aatgccaagg ccttgatcgc ggccggagtg gcctttttcc atctgcagga ctatgaccag
660
gcccgccact acctcctggc tgccgtgaat aggcagccta aagatgccaa cgtccggcgg
720
tacctccagc tgacacagtc agaactcagc agctaccata gaaaagagaa gcagctctac
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960
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1020
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1064

```

&lt;210&gt; 4904

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4904

```

Cys Trp Ala Ser Leu Phe Pro His Pro Phe Pro Tyr Tyr Leu Pro Ala
 1           5           10          15
Leu Leu Glu Lys Lys Thr Ala Glu Arg Arg Gly Gly Ala Phe Ser Arg
 20          25          30
Asn Lys Gln Thr Ala Val Pro Val Gly Gly Leu Ser Arg Lys Lys Val
 35          40          45
Pro Gln Glu Pro Trp Ala Thr Val Met Glu Lys Arg Leu Gln Glu Ala

```

```

      50              55              60
Gln Leu Tyr Lys Glu Glu Gly Asn Gln Arg Tyr Arg Glu Gly Lys Tyr
65              70              75              80
Arg Asp Ala Val Ser Arg Tyr His Arg Ala Leu Leu Gln Leu Arg Gly
      85              90              95
Leu Asp Pro Xaa Ser Ala Leu Ser Val Thr
      100              105

```

&lt;210&gt; 4905

&lt;211&gt; 615

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4905

```

ccccgcagcc acgtggcgga tgggtgttccg cgacaggctc agatgcagca ggccctgtcat
60
gttggccagg tcgcgggcggc gcacggaggc gatgaagtgt tctgccagcc gcagctcggc
120
tgccccggcgg tccagcgagg gtggcacgaa caggaggcct gcccctgggc acagcacgct
180
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ggccgcctgg gcaacgtcaa caggttgggc ctgcaccaca acctgctggc ttctgtgccc
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540
ctggtgtggc tgcgtcgctt ggcggggag gacgacctcg aggcctgcgc gtccccacct
600
gctctgggag gccgc
615

```

&lt;210&gt; 4906

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4906

```

Gly Gln Arg Leu Cys Leu Ala Ala Ala Ala Gly Thr Trp Ala Gly
 1              5              10              15
Cys Ala Glu Thr Leu Glu Asp Leu Asp Leu Ser Tyr Asn Asn Leu Glu
      20              25              30
Gln Leu Pro Trp Glu Ala Leu Gly Arg Leu Gly Asn Val Asn Thr Leu
      35              40              45
Gly Leu Asp His Asn Leu Leu Ala Ser Val Pro Ala Gly Ala Phe Ser
      50              55              60
Arg Leu His Lys Leu Ala Arg Leu Asp Met Thr Ser Asn Arg Leu Thr
      65              70              75              80
Thr Ile Pro Pro Asp Pro Leu Phe Ser Arg Leu Pro Leu Leu Ala Arg

```





ggagatccgc cagtccagc ccagacagaa agtccatata ctcggtctct tcccccgga  
 1260  
 ggctggcgat cgcctcctcc tccatctcct cgggggaggg cgcgcgcacg gccacgccgc  
 1320  
 cgcggtccc cctccncggc ttccaactct ccttcgtcgc caaactgctg cttgcgggcg  
 1380  
 ggagatccgg ccgcgcgcgt ctcctcctcc cccgctgcag cccgggtcag gtcagagggc  
 1440  
 agcgaacaag ttgcagccgg ctccgggctc tcaactgcgg ttggggagtt gctgcccag  
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 1620  
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 accgcgcc  
 1748

<210> 4908

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4908

Glu	Lys	Thr	Thr	Pro	Ser	Gly	Arg	Thr	Pro	Ser	Arg	Thr	Pro	Pro	Thr
1				5				10					15		
Pro	Tyr	Pro	Cys	Pro	His	Gly	Asp	Arg	Leu	Leu	Pro	Pro	Ser	Arg	Pro
			20				25					30			
Leu	Pro	Ala	Gly	Pro	Ala	Ser	Ala	Phe	Pro	Pro	Ala	Glu	Arg	Ser	Arg
		35				40					45				
Gly	His	Arg	Arg	Ala	Ser	Leu									
	50				55										

<210> 4909

<211> 1960

<212> DNA

<213> Homo sapiens

<400> 4909

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 cgcggctccc cgaaccggaa gtggaggtga gctgtcgcgg gcggcgcccg gccttgcctc  
 180  
 acgcccagca gtccccaccg tcgtgcccgc cgccaccgcc ctcggccgct gccgaggcct  
 240  
 cctgcagcca tcatgtccgc cagcgccgtc tacgtgctgg acctgaaggg caaggtgctc  
 300  
 atctgccgga actaccgtgg cgacgtggac atgtcagagg tggagcactt catgcccatc  
 360

ctgatggaga aggaggagga ggggatgctg tcgcccaccc tggcccacgg gggggtccgt  
420  
ttcatgtgga tcaaacacaa caacctgtat ctgggttgcca catccaagaa gaacgcgtgc  
480  
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540  
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600  
ctcatggact tcggcttccc ccagaccacc gacagcaaga tcctgcagga gtacatcact  
660  
cagcagagca acaagctgga gacgggcaag tcacgggtgc caccactgt caccaacgct  
720  
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840  
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900  
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1140  
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1260  
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1320  
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1380  
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1440  
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1500  
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<210> 4910  
 <211> 423  
 <212> PRT  
 <213> Homo sapiens

<400> 4910

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Phe Met Pro Ile Leu Met Glu Lys Glu Glu Glu Gly Met Leu Ser Pro
 35           40           45
Ile Leu Ala His Gly Gly Val Arg Phe Met Trp Ile Lys His Asn Asn
 50           55           60
Leu Tyr Leu Val Ala Thr Ser Lys Lys Asn Ala Cys Val Ser Leu Val
 65           70           75           80
Phe Ser Phe Leu Tyr Lys Val Val Gln Val Phe Ser Glu Tyr Phe Lys
 85           90           95
Glu Leu Glu Glu Glu Ser Ile Arg Asp Asn Phe Val Ile Ile Tyr Glu
 100          105          110
Leu Leu Asp Glu Leu Met Asp Phe Gly Phe Pro Gln Thr Thr Asp Ser
 115          120          125
Lys Ile Leu Gln Glu Tyr Ile Thr Gln Gln Ser Asn Lys Leu Glu Thr
 130          135          140
Gly Lys Ser Arg Val Pro Pro Thr Val Thr Asn Ala Val Ser Trp Arg
 145          150          155          160
Ser Glu Gly Ile Lys Tyr Lys Lys Asn Glu Val Phe Ile Asp Val Ile
 165          170          175
Glu Ser Val Asn Leu Leu Val Asn Ala Asn Gly Ser Val Leu Leu Ser
 180          185          190
Glu Ile Val Gly Thr Ile Lys Met Arg Val Phe Leu Ser Gly Met Pro
 195          200          205
Glu Leu Arg Leu Gly Leu Asn Asp Lys Val Leu Phe Asp Asn Thr Gly
 210          215          220
Arg Gly Lys Ser Lys Ser Val Glu Leu Glu Asp Val Lys Phe His Gln
 225          230          235          240
Cys Val Arg Leu Ser Arg Phe Glu Asn Asp Arg Thr Ile Ser Phe Ile
 245          250          255
Pro Pro Asp Gly Glu Phe Glu Leu Met Ser Tyr Arg Leu Asn Thr His
 260          265          270
Val Lys Pro Leu Ile Trp Ile Glu Ser Val Ile Glu Lys Phe Ser His
 275          280          285
Ser Arg Ile Glu Tyr Met Val Lys Ala Lys Gly Gln Phe Lys Lys Gln
 290          295          300
Ser Val Ala Asn Gly Val Glu Ile Ser Val Pro Val Pro Ser Asp Ala
 305          310          315          320
Asp Ser Pro Arg Phe Lys Thr Ser Val Gly Ser Ala Lys Tyr Val Pro
 325          330          335
Glu Arg Asn Val Val Ile Trp Ser Ile Lys Ser Phe Pro Gly Gly Lys
 340          345          350
Glu Tyr Leu Met Arg Ala His Phe Gly Leu Pro Ser Val Glu Lys Glu
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Glu Val Glu Gly Arg Pro Pro Ile Gly Val Lys Phe Glu Ile Pro Tyr

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Phe Thr Val Ser Gly Ile Gln Val Arg Tyr Met Lys Ile Ile Glu Lys
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Asp Tyr Gln Leu Arg Thr Ser
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<210> 4911
<211> 1862
<212> DNA
<213> Homo sapiens

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240
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480
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<210> 4912

<211> 453

<212> PRT

<213> Homo sapiens

<400> 4912

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			20					25						30	
Leu	Lys	Ala	Ile	Leu	Ile	Gln	Arg	Gln	Ile	Asp	Val	Asp	Thr	Val	Phe
			35					40						45	
Glu	Val	Glu	Asp	Glu	Asn	Met	Val	Leu	Ala	Ser	Tyr	Lys	Gln	Gly	Tyr
			50					55						60	
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Leu	Ser	Val	Leu	Phe	Gly	His	Val	Glu	Cys	Leu	Leu	Val	Leu	Leu	Asp
His	Asn	Ala	Thr	Ile	Asn	Cys	Arg	Pro	Asn	Gly	Lys	Thr	Pro	Leu	His
Val	Ala	Cys	Glu	Met	Ala	Asn	Val	Asp	Cys	Val	Lys	Ile	Leu	Cys	Asp
Arg	Gly	Ala	Lys	Leu	Asn	Cys	Tyr	Ser	Leu	Ser	Gly	His	Thr	Ala	Leu
His	Phe	Cys	Thr	Thr	Pro	Ser	Ser	Ile	Leu	Cys	Ala	Lys	Gln	Leu	Val
Trp	Arg	Val	Thr	Gln	Val	Asn	His	Met	Leu	Gly	Asn	Ser	Leu	Val	Asn
Glu	Val	Glu	His	Val	Thr	Gln	Val	Asn	His	Met	Leu	Gly	Asn	Ser	Leu

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Gln	Asp	Glu	Glu	Thr	Pro	Leu	His	Thr	Ala	Ala	His	Phe	Gly	Leu	Ser
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225				230				235				240			
Asn	Ala	His	Met	Glu	Thr	Pro	Leu	Ala	Ile	Ala	Ala	Tyr	Trp	Ala	Leu
245				250				255							
Arg	Phe	Lys	Glu	Gln	Glu	Tyr	Ser	Thr	Glu	His	His	Leu	Val	Cys	Arg
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Met	Leu	Leu	Asp	Tyr	Lys	Ala	Glu	Val	Asn	Ala	Arg	Asp	Asp	Asp	Phe
275				280				285							
Lys	Ser	Pro	Leu	His	Lys	Ala	Ala	Trp	Asn	Cys	Asp	His	Val	Leu	Met
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305				310				315				320			
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Ala	Arg	Ile	Tyr	Pro	Pro	Gln	Phe	His	Lys	Val	Ile	Gln	Ala	Cys	His
355				360				365							
Ser	Cys	Pro	Lys	Ala	Ile	Glu	Val	Val	Val	Asn	Ala	Tyr	Glu	His	Ile
370				375				380							
Arg	Trp	Asn	Thr	Lys	Trp	Arg	Arg	Ala	Ile	Pro	Asp	Asp	Asp	Leu	Glu
385				390				395				400			
Val	Asn	Asn	Arg	Phe	Pro	Ser	Asn	Ser	Phe	His	Tyr	Gln	Val	Leu	Pro
405				410				415							
Asp	Cys	Ser	Arg	Ser	Thr	Glu	Asn	Cys	Asn	Lys	Lys	Val	Gly	Phe	Glu
420				425				430							
Asn	Ala	Phe	Lys	Ala	Tyr	Ser	Asn	Ala	Met	Arg	Gln	Arg	Val	Ile	Lys
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<212> DNA
<213> Homo sapiens
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 <212> PRT  
 <213> Homo sapiens

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 Phe Phe Lys Met Ala Val Thr Tyr Ser Arg Leu Phe Pro Pro Ala Phe  
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 Phe Val Leu Ala Tyr Ile His Ile Val Phe Ser Arg Ser Pro Ile Asn  
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 Cys Leu Glu His Val Arg Asp Lys Trp Pro Arg Glu Gly Ile Leu Arg  
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 Val Glu Val Arg His Asn Ser Ser Arg Ala Pro Val Phe Leu Gln Phe  
 115 120 125  
 Cys Asp Ser Gly Gly Arg Gly Ser Phe Pro Gly Leu Ala Val Glu Pro  
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 Gly Ser Asn Leu Asp Met Glu Asp Glu Glu Glu Glu Leu Thr Met  
 145 150 155 160  
 Glu Met Phe Gly Asn Ser Ser Ile Lys Phe Glu Leu Asp Ile Glu Pro  
 165 170 175  
 Lys Val Phe Lys Pro Pro Ser Ser Thr Glu Ala Leu Asn Asp Ser Gln  
 180 185 190  
 Glu Phe Pro Phe Pro Glu Thr Pro Thr Lys Val Trp Pro Gln Asp Glu  
 195 200 205  
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 225 230 235 240  
 Pro Thr Arg Asp Gln Cys Phe Gly Asp Arg Phe Ser Arg Leu Leu Leu  
 245 250 255  
 Asp Glu Phe Leu Gly Tyr Asp Asp Ile Leu Met Ser Ser Val Lys Gly  
 260 265 270  
 Leu Ala Glu Asn Glu Glu Asn Lys Gly Phe Leu Arg Asn Val Val Ser  
 275 280 285  
 Gly Glu His Tyr Arg Phe Val Ser Met Trp Met Ala Arg Thr Ser Tyr  
 290 295 300  
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 305 310 315 320  
 Leu Leu Arg Tyr Ser His His Gln Ile Phe Val Phe Ile Val Asp Leu  
 325 330 335  
 Leu Gln Met Leu Glu Met Asn Met Ala Ile Ala Phe Pro Ala Ala Pro

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      370      375      380
Trp Leu Ala Asp Gln Tyr Asp Ala Ile Cys Cys His Thr Ser Thr Ser
385      390      395      400
Lys Arg His Trp Leu Arg Phe Phe Tyr Leu Tyr His Phe Ala Phe Tyr
      405      410      415
Ala Tyr His Tyr Arg Phe Asn Gly Gln Tyr Ser Ser Leu Ala Leu Val
      420      425      430
Thr Ser Trp Leu Phe Ile Gln His Ser Met Ile Tyr Phe Phe His His
      435      440      445
Tyr Glu Leu Pro Ala Ile Leu Gln Gln Val Arg Ile Gln Glu Met Leu
      450      455      460
Leu Gln Ala Pro Pro Leu Gly Pro Gly Thr Pro Thr Ala Leu Pro Asp
465      470      475      480
Asp Met Asn Asn Asn Ser Gly Ala Pro Ala Thr Ala Pro Asp Ser Ala
      485      490      495
Gly Gln Pro Pro Ala Leu Gly Pro Val Phe Glu Leu Val Ser Lys Glu
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Gln

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&lt;210&gt; 4915

&lt;211&gt; 1157

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4915

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<210> 4916

<211> 59

<212> PRT

<213> Homo sapiens

<400> 4916

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			20					25					30		
Trp	Gly	Pro	Gly	Gly	Asp	Ala	Pro	Arg	Gly	Ser	Gly	Leu	Lys	Arg	Pro
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<211> 1544

<212> DNA

<213> Homo sapiens

<400> 4917

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 ggtgctgaga cctgtgcggt gtgcctggac tacttctgca acaaacaggc tagtgccccg  
 1320  
 gtggctccgg gtgctgcct gtaagcacga gtttcaccga gactgtgtgg acccctggct  
 1380  
 gatgctccag cagacctgcc cactgtgcaa attcaacgtc ctgggtgagc accaggggtg  
 1440  
 gggctccctg gcctactctg cctgtctctc acctgatgcc tctctccctg ttcttcttc  
 1500  
 cctccctgc aggaaccgc tactccgatg attagctgcc cagc  
 1544

<210> 4918

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4918

Met Gly Pro Ala Ala Arg Pro Ala Leu Arg Ser Pro Pro Pro Pro Pro  
 1 5 10 15  
 Pro Pro Pro Pro Ser Pro Leu Leu Leu Leu Pro Leu Leu Pro Leu  
 20 25 30  
 Trp Leu Gly Leu Ala Gly Pro Gly Ala Ala Ala Asp Gly Ser Glu Pro  
 35 40 45  
 Ala Ala Gly Ala Gly Arg Gly Gly Ala Arg Ala Val Arg Val Asp Val  
 50 55 60  
 Arg Leu Pro Arg Gln Asp Ala Leu Val Leu Glu Gly Val Arg Ile Gly

```

65          70          75          80
Ser Glu Ala Asp Pro Ala Pro Leu Leu Gly Gly Arg Leu Leu Leu Met
          85          90          95
Asp Val Val Asp Ala Glu Gln Glu Ala Pro Ala Asp Gly Trp Ile Ala
          100          105          110
Val Ala Tyr Val Gly Lys Glu Gln Ala Ala Gln Phe His Gln Glu Asn
          115          120          125
Lys Gly Ser Gly Pro Gln Ala Tyr Pro Lys Ala Leu Val Gln Gln Met
          130          135          140
Arg Arg Ala Leu Phe Leu Gly Ala Ser Ala Leu Leu Leu Leu Ile Leu
          145          150          155          160
Asn His Asn Val Val Arg Glu Leu Asp Ile Ser Gln Leu Leu Leu Arg
          165          170          175
Pro Val Ile Val Leu His Tyr Ser Ser Asn Val Thr Lys Leu Leu Asp
          180          185          190
Ala Leu Leu Gln Arg Thr Gln Ala Thr Ala Glu Ile Thr Ser Gly Glu
          195          200          205
Ser Leu Ser Ala Asn Ile Glu Trp Lys Leu Thr Leu Trp Thr Thr Cys
          210          215          220
Gly Leu Ser Lys Asp Gly Tyr Gly Gly Trp Gln Asp Leu Val Cys Leu
          225          230          235          240
Gly Gly Ser Arg Ala Gln Glu Gln Lys Pro Leu Gln Gln Leu Trp Asn
          245          250          255
Ala Ile Leu Leu Val Ala Met Leu Leu Cys Thr Gly Leu Val Val Gln
          260          265          270
Ala Gln Arg Gln Ala Ser Arg Gln Ser Gln Arg Glu Leu Gly Gly Gln
          275          280          285
Val Asp Leu Phe Lys Arg Arg Val Val Arg Arg Leu Ala Ser Leu Lys
          290          295          300
Thr Arg Arg Cys Arg Leu Ser Arg Ala Ala Gln Gly Leu Pro Asp Pro
          305          310          315          320
Gly Ala Glu Thr Cys Ala Val Cys Leu Asp Tyr Phe Cys Asn Lys Gln
          325          330          335
Ala Ser Ala Pro Val Ala Pro Gly Ala Ala Leu
          340          345

```

&lt;210&gt; 4919

&lt;211&gt; 1362

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4919

```

ncggaggcgg gcacttgggg ggaaagtga gacgtgatta ccgggttggg cgggccccat
60
ctgggagggg tttgtgggtg aactcggggt ccaccgcccg ctgaggagat ggatgaggac
120
gggcttcctc tcatgggggc aggcatagac ctgaccaagg tgccagctat tcaacagaaa
180
agaacggtgg cttttctaaa ccaatttgtg gtgcacactg tacagttcct caaccgcttt
240
tctacagttt gtgaggagaa actggcagac ctttcacttc gtatccaaca aattgaaaca
300
actctcaata ttttagatgc aaagttgtca tctatcccag gcctagatga tgtcacagtt
360

```

gaagtatctc ctttaaatgt caccagtgtc acaaatggag cacatcctga agccacttca  
 420  
 gagcaaccac agcagaacag tacacaagac tctggactac aggaaagtga agtatcagca  
 480  
 gaaaaatatct taactgtagc caaggatcca agatatgcca gatattctcaa aatgggttcaa  
 540  
 gtgggtgtac cagtgtatggc aataagaaac aaaatgatat cagaaggact agaccagat  
 600  
 cttcttgaga ggccagatgc tccagtgcct gatggcgaaa gtgagaaaac tgtagaagaa  
 660  
 agttcagata gcgaatcttc ttttagtgat taagcttaat tttgataaga attacatatg  
 720  
 catgcatagg ggtacattta cattctgtaa gagattgagc ctgaactctc ttagtcataa  
 780  
 aaacatcaaa tggccacatg tccactacca agcttcttct atgttaaaaa aataataata  
 840  
 aagcagtttt aacctgcccc gtatgtcttg ttgctaaaat aanggccctc aaattgaaaa  
 900  
 ttnggatacc ctaaataaag taccaattag tgctccaaat actaagatag aatatttttag  
 960  
 agatgcaatg agcaattaca gtcaggcacg ggttgtcacg cctgtaatcc cagcactttg  
 1020  
 ggaggccgag gcgagtggat aacctgaggt caggagtcca agaccagcct ggccaacatg  
 1080  
 gtgaaacctc catctctact aaaaatacaa aaagtagctg ggcgtggtga caaaaattag  
 1140  
 ctgggcgtag tggcagggtgc ctgtaatccc agctactcgg gaagctgagg caggagaatc  
 1200  
 acttgaaccc agaaggtaaa ggtttcagtg agctgagatt gcgtcattgc actccagcca  
 1260  
 tggcgacaag agtgaaactc tgtcttaaaa ataaaaagag atgcaatgag caatttttaa  
 1320  
 tgaagtcagt gtgagtttag tgatcaatag tagaccaat gc  
 1362

&lt;210&gt; 4920

&lt;211&gt; 194

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4920

Met	Asp	Glu	Asp	Gly	Leu	Pro	Leu	Met	Gly	Ser	Gly	Ile	Asp	Leu	Thr
1				5					10					15	
Lys	Val	Pro	Ala	Ile	Gln	Gln	Lys	Arg	Thr	Val	Ala	Phe	Leu	Asn	Gln
			20					25					30		
Phe	Val	Val	His	Thr	Val	Gln	Phe	Leu	Asn	Arg	Phe	Ser	Thr	Val	Cys
			35				40					45			
Glu	Glu	Lys	Leu	Ala	Asp	Leu	Ser	Leu	Arg	Ile	Gln	Gln	Ile	Glu	Thr
			50				55					60			
Thr	Leu	Asn	Ile	Leu	Asp	Ala	Lys	Leu	Ser	Ser	Ile	Pro	Gly	Leu	Asp
65					70					75				80	
Asp	Val	Thr	Val	Glu	Val	Ser	Pro	Leu	Asn	Val	Thr	Ser	Val	Thr	Asn
					85				90					95	
Gly	Ala	His	Pro	Glu	Ala	Thr	Ser	Glu	Gln	Pro	Gln	Gln	Asn	Ser	Thr

	100		105		110										
Gln	Asp	Ser	Gly	Leu	Gln	Glu	Ser	Glu	Val	Ser	Ala	Glu	Asn	Ile	Leu
	115		120		125										
Thr	Val	Ala	Lys	Asp	Pro	Arg	Tyr	Ala	Arg	Tyr	Leu	Lys	Met	Val	Gln
	130		135		140										
Val	Gly	Val	Pro	Val	Met	Ala	Ile	Arg	Asn	Lys	Met	Ile	Ser	Glu	Gly
	145		150		155				160						
Leu	Asp	Pro	Asp	Leu	Leu	Glu	Arg	Pro	Asp	Ala	Pro	Val	Pro	Asp	Gly
	165		170		175										
Glu	Ser	Glu	Lys	Thr	Val	Glu	Glu	Ser	Ser	Asp	Ser	Glu	Ser	Ser	Phe
	180		185		190										
Ser	Asp														

&lt;210&gt; 4921

&lt;211&gt; 1272

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4921

```

nggttggttag cttctatcct gggggctgag cgactgcggg ccagctcttc ccctactccc
60
tctcggctcc ttgtggccca aaggccctaa ccggggtccg gcgggtctgtg ccctagggta
120
tcttccccgt tgcccccttg gggcggggatg gctgcggaag aagaagacga ggtggagtgg
180
gtagtggaga gcatcgcggg gctcctgcga ggcccagact ggtccatccc catcttggac
240
tttgtggaac agaaatgtga agtttttgat gatgaagaag aaagcaaatt gacctataca
300
gagattcatc aggaatacaa agaactagtt gaaaagctgt tagaaggtta cctcaaagaa
360
attggaatta atgaagatca atttcaagaa gcatgcactt ctctctctgc aaagacccat
420
acatcacagg ccattttgca acctgtgttg gcagcagaag attttactat ctttaaagca
480
atgattggtc agaaaaacat tgaatgcag ctgcaagcca ttcgaataat tcaagagaga
540
aatggtgtat tacctgactg cttaaccgat ggctctgatg tggtcagtga ccttgaacac
600
gaagagatga aaatcctgag ggaagtctt agaaaatcaa aagaggaata tgaccaggaa
660
gaagaaagga agaggaaaaa acagttatca gaggctaaaa cagaagagcc cacagtgcac
720
tccagtgaag ctgcaataat gaataattcc caaggggatg gtgaacattt tgcacaccca
780
ccctcagaag ttaaaatgca ttttgctaat cagtcaatag aacctttggg aagaaaagtg
840
gaaaggtctg aaacttcctc cctcccacaa aaaggcctga agattcctgg cttagagcat
900
gcgagcattg aaggaccaat agcaaaacta tcagtacttg gaacagaaga acttcggcaa
960
cgagaacact atctcaagca gaagagagat aagttgatgt ccatgagaaa ggatatgagg
1020

```

actaaacaga tacaaaatat ggagcagaaa ggaaaaccca ctggggaggt agaggaaatg  
 1080  
 acagagaaac cagaaatgac agcagaggag aagcaaacat tactaaagag gagattgctt  
 1140  
 gcagagaaac tcaaagaaga agttattaat aagtaataat taagaacaat ttaacaaaat  
 1200  
 ggaagttcaa attgtcttaa aaataaatta tttagtcctt acactgaaaa aaaaaaaaaa  
 1260  
 aaaaaataaa aa  
 1272

<210> 4922

<211> 342

<212> PRT

<213> Homo sapiens

<400> 4922

Met	Ala	Ala	Glu	Glu	Glu	Asp	Glu	Val	Glu	Trp	Val	Val	Glu	Ser	Ile
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Ala	Gly	Leu	Leu	Arg	Gly	Pro	Asp	Trp	Ser	Ile	Pro	Ile	Leu	Asp	Phe
		20						25					30		
Val	Glu	Gln	Lys	Cys	Glu	Val	Phe	Asp	Asp	Glu	Glu	Glu	Ser	Lys	Leu
		35					40					45			
Thr	Tyr	Thr	Glu	Ile	His	Gln	Glu	Tyr	Lys	Glu	Leu	Val	Glu	Lys	Leu
	50					55				60					
Leu	Glu	Gly	Tyr	Leu	Lys	Glu	Ile	Gly	Ile	Asn	Glu	Asp	Gln	Phe	Gln
65					70				75					80	
Glu	Ala	Cys	Thr	Ser	Pro	Leu	Ala	Lys	Thr	His	Thr	Ser	Gln	Ala	Ile
			85						90					95	
Leu	Gln	Pro	Val	Leu	Ala	Ala	Glu	Asp	Phe	Thr	Ile	Phe	Lys	Ala	Met
		100						105						110	
Met	Val	Gln	Lys	Asn	Ile	Glu	Met	Gln	Leu	Gln	Ala	Ile	Arg	Ile	Ile
		115					120						125		
Gln	Glu	Arg	Asn	Gly	Val	Leu	Pro	Asp	Cys	Leu	Thr	Asp	Gly	Ser	Asp
		130				135						140			
Val	Val	Ser	Asp	Leu	Glu	His	Glu	Glu	Met	Lys	Ile	Leu	Arg	Glu	Val
145					150					155				160	
Leu	Arg	Lys	Ser	Lys	Glu	Glu	Tyr	Asp	Gln	Glu	Glu	Glu	Arg	Lys	Arg
			165						170					175	
Lys	Lys	Gln	Leu	Ser	Glu	Ala	Lys	Thr	Glu	Glu	Pro	Thr	Val	His	Ser
			180						185					190	
Ser	Glu	Ala	Ala	Ile	Met	Asn	Asn	Ser	Gln	Gly	Asp	Gly	Glu	His	Phe
		195					200						205		
Ala	His	Pro	Pro	Ser	Glu	Val	Lys	Met	His	Phe	Ala	Asn	Gln	Ser	Ile
		210					215						220		
Glu	Pro	Leu	Gly	Arg	Lys	Val	Glu	Arg	Ser	Glu	Thr	Ser	Ser	Leu	Pro
225					230					235				240	
Gln	Lys	Gly	Leu	Lys	Ile	Pro	Gly	Leu	Glu	His	Ala	Ser	Ile	Glu	Gly
			245							250				255	
Pro	Ile	Ala	Asn	Leu	Ser	Val	Leu	Gly	Thr	Glu	Glu	Leu	Arg	Gln	Arg
			260					265						270	
Glu	His	Tyr	Leu	Lys	Gln	Lys	Arg	Asp	Lys	Leu	Met	Ser	Met	Arg	Lys
		275					280						285		
Asp	Met	Arg	Thr	Lys	Gln	Ile	Gln	Asn	Met	Glu	Gln	Lys	Gly	Lys	Pro



```

      290              295              300
Thr Gly Glu Val Glu Glu Met Thr Glu Lys Pro Glu Met Thr Ala Glu
305              310              315              320
Glu Lys Gln Thr Leu Leu Lys Arg Arg Leu Leu Ala Glu Lys Leu Lys
      325              330              335
Glu Glu Val Ile Asn Lys
      340

```

<210> 4923  
 <211> 765  
 <212> DNA  
 <213> Homo sapiens

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<400> 4923
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aagccttctg ctccctnctcc aaggacctca tttagctccg ccagcagggtc atcatcagcc
120
tccaagtcgt cctcatccgt cccctcctcc tcatectcat ccgggtctct catgcacagg
180
ctggccatct tctcaatggc ctccatcggc aagggaacct tgcctttgag cttctccagg
240
gctggggggt gggccccgac caaagccaag aactcagcct ccagttcttc atcgttagcc
300
ccgtctcag ggatcatcag gccatctggg gagaggtcaa ccagcaggcc cagctggcgg
360
gcggccgcgg cgctcttgcc cgggggtccc gggggtcctt cctcttgtgc atcttcaagg
420
ctggatgcc ggaccacctg cccccaagcc cggccttgcc ctgccccttc cccgggctct
480
gtcgccgcgc actcgccctt cctgagtcct gcactcctcg tcggcgccct gcggccggtc
540
gatccccgag cctcgcttcc ctgcttgccc gtcccacttc cgctcgggc ctcgggcgcc
600
gccgcacctn ggagcgcggc cagctgggct cgcgaggtc tgccgagccg aaactacaac
660
tcccggcaga tttctcaagg ggaagataaa atgactaaga ggaagaagct gcggacctca
720
gctcccctga tgaggaaaca ggatctccct gccggctcct ccgtc
765

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<210> 4924  
 <211> 255  
 <212> PRT  
 <213> Homo sapiens

```

<400> 4924
Ser Pro Ala Pro Asp Glu Gly Pro Gln Ala Ser Ala Gly Pro Gln Glu
1      5      10      15
Val Gly Ser Leu Lys Pro Ser Ala Pro Xaa Pro Arg Thr Ser Phe Ser
      20      25      30
Ser Ala Ser Arg Ser Ser Ser Ala Ser Lys Ser Ser Ser Ser Val Pro
      35      40      45
Ser Ser Ser Ser Ser Ser Gly Ser Leu Met His Arg Leu Ala Ile Phe

```

```

      50              55              60
Ser Met Ala Ser Ile Gly Lys Gly Pro Leu Pro Leu Ser Phe Ser Arg
65              70              75              80
Ala Gly Gly Trp Pro Pro Thr Lys Ala Lys Asn Ser Ala Ser Ser Ser
      85              90              95
Ser Ser Leu Ala Pro Ser Ser Gly Ile Ile Arg Pro Ser Gly Glu Arg
      100             105             110
Ser Thr Ser Arg Pro Ser Trp Arg Ala Ala Ala Ala Pro Leu Pro Gly
      115             120             125
Gly Pro Gly Gly Pro Ser Ser Cys Ala Ser Ser Arg Leu Asp Ala Arg
      130             135             140
Thr Thr Cys Pro Gln Ala Arg Pro Cys Pro Ala Pro Ser Pro Gly Ser
145             150             155             160
Val Ala Ala His Ser Pro Phe Leu Ser Pro Ala Leu Leu Val Gly Ala
      165             170             175
Leu Arg Pro Val Asp Pro Glu Pro Ser Leu Pro Cys Leu Ala Val Pro
      180             185             190
Leu Pro Pro Arg Ala Ser Gly Ala Ala Ala Pro Xaa Ser Ala Ala Ser
      195             200             205
Trp Ala Arg Arg Gly Leu Pro Ser Arg Asn Tyr Asn Ser Arg Gln Ile
      210             215             220
Ser Gln Gly Glu Asp Lys Met Thr Lys Arg Lys Lys Leu Arg Thr Ser
225             230             235             240
Ala Pro Leu Met Arg Lys Gln Asp Leu Pro Ala Gly Ser Ser Val
      245             250             255

```

&lt;210&gt; 4925

&lt;211&gt; 374

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4925

```

gcccaatttgg agaaagagct ccaggagatg gaggcacggt acgagaagga gtttgagat
60
ggatcggatg aaaatgaaat ggaagaacat gaactcaaag atgaggagga tggtaaagac
120
agtgatgagg ccgaggacgc tgagctctat gatgaccttt actgcccagc atgtgacaaa
180
tcgttcaaga cagaaaaggc catgaagaat cacgagaagt caaagaagca tcgggaaatg
240
gtggccttgc taaaacaaca gctggaggag gaagaagaaa atttttcaag acctcaaatt
300
gatgaaaatc cattagatga caattctgag gaagaaatgg aagatgcacc aaaacaaaag
360
cttttctaaaa aaaa
374

```

&lt;210&gt; 4926

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4926

```

Ala Asn Leu Glu Lys Glu Leu Gln Glu Met Glu Ala Arg Tyr Glu Lys

```

```

      1           5           10           15
Glu Phe Gly Asp Gly Ser Asp Glu Asn Glu Met Glu Glu His Glu Leu
      20           25           30
Lys Asp Glu Glu Asp Gly Lys Asp Ser Asp Glu Ala Glu Asp Ala Glu
      35           40           45
Leu Tyr Asp Asp Leu Tyr Cys Pro Ala Cys Asp Lys Ser Phe Lys Thr
      50           55           60
Glu Lys Ala Met Lys Asn His Glu Lys Ser Lys Lys His Arg Glu Met
      65           70           75           80
Val Ala Leu Leu Lys Gln Gln Leu Glu Glu Glu Glu Asn Phe Ser
      85           90           95
Arg Pro Gln Ile Asp Glu Asn Pro Leu Asp Asp Asn Ser Glu Glu Glu
      100          105          110
Met Glu Asp Ala Pro Lys Gln Lys Leu Ser Lys Lys
      115          120

```

&lt;210&gt; 4927

&lt;211&gt; 1649

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4927

```

atccaccgct gagctgggag aaagatggcg gccgtgcgac aggatttggc ccagctcatg
60
aattcgagcg gctctcataa agatctggct ggcaagtatc gtcagatcct ggaaaaagcc
120
attcagttat ctggagcaga acaactagaa gctttgaaag cttttgtgga agcaatggta
180
aatgagaatg tcagtctcgt gatctcgcgg cagttgctga ctgatttttg cacacatctt
240
cctaacttgc ctgatagcac agccaaagaa atctatcact tcaccttggga aaagatccag
300
cctagagtca tttcatttga ggagcagggt gcttccataa gacagcatct tgcattctata
360
tatgagaaaag aagaagattg gagaaatgca gcccaagtgt tgggtgggaat tcctttggaa
420
acaggacaaa aacagtacaa tgtagattat aaactggaga cttacttgaa gattgctagg
480
ctatatctgg aggatgatga tccagtcagc gcagaggcctt acataaatcg agcatcggtg
540
cttcagaatg aatcaaccaa tgaacaatta cagatacatt ataaggtatg ctatgcacgt
600
gttcttgatt atagaagaaa attcattgaa gctgcacaaa ggtacaatga gctctcttac
660
aagacaatag tccacgaaag tgaagacta gaggcottaa aacatgcttt gcactgtacg
720
atcttagcat cagcaggaca gcagcgttct cggatgctgg ctaccctttt taaggatgaa
780
agggtgccagc aacttgctgc ttatgggata ctagagaaaa tgtatctaga caggatcatc
840
agaggggaacc agcttcaaga atttgctgcc atgctgatgc ctcaccaaaa agcaactaca
900
gctgatgggt ccagcatctt ggacagagct gttattgaac acaatttggt gtctgcaagc
960

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aaattatata ataattattac cttcgaagaa cttggagctc ttttagagat ccctgcagct  
 1020  
 aaggcggaaa agatagcatc tcaaatgata accgaaggac gtatgaatgg atttattgac  
 1080  
 cagattgatg gaatagtcca ttttgaaaca cgagaagccc tgccaacgtg ggataagcag  
 1140  
 atccaatcac tttgtttcca agtgaataac cttttggaga aaattagtca aacagcacca  
 1200  
 gaatggacag cacaagccat ggaagcccag atggctcagt gaatccttgc agaacttctg  
 1260  
 tgcacatgac atctttttcc atgttgtgca gatcagtttc actatctcca aagcatttgc  
 1320  
 atcatgatct tatacatctt aatccctttt atgctggatt ccgtttaaag aagacattat  
 1380  
 tagagcagga agtacaagca tttaaaatat gtagttccca tatatttcag ggtctctgtg  
 1440  
 tattaagcta actcagatgt tttgaaagct ttttctttaa acagaggtga aatatctgtg  
 1500  
 gctaaaaagt ttgagatttg tgataacttt gtagtcatgt aaaacttaag tgcttcatgc  
 1560  
 ctctccaaat gtggttattc taataaatgg agaaatgagc caaaaaaag tagtactttg  
 1620  
 tttttaaaaa aaaaaaaaaa aaaaaaaaaa  
 1649

&lt;210&gt; 4928

&lt;211&gt; 405

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4928

Met	Ala	Ala	Val	Arg	Gln	Asp	Leu	Ala	Gln	Leu	Met	Asn	Ser	Ser	Gly
1					5				10					15	
Ser	His	Lys	Asp	Leu	Ala	Gly	Lys	Tyr	Arg	Gln	Ile	Leu	Glu	Lys	Ala
			20					25					30		
Ile	Gln	Leu	Ser	Gly	Ala	Glu	Gln	Leu	Glu	Ala	Leu	Lys	Ala	Phe	Val
		35					40						45		
Glu	Ala	Met	Val	Asn	Glu	Asn	Val	Ser	Leu	Val	Ile	Ser	Arg	Gln	Leu
		50				55					60				
Leu	Thr	Asp	Phe	Cys	Thr	His	Leu	Pro	Asn	Leu	Pro	Asp	Ser	Thr	Ala
65					70					75				80	
Lys	Glu	Ile	Tyr	His	Phe	Thr	Leu	Glu	Lys	Ile	Gln	Pro	Arg	Val	Ile
				85					90					95	
Ser	Phe	Glu	Glu	Gln	Val	Ala	Ser	Ile	Arg	Gln	His	Leu	Ala	Ser	Ile
			100					105					110		
Tyr	Glu	Lys	Glu	Glu	Asp	Trp	Arg	Asn	Ala	Ala	Gln	Val	Leu	Val	Gly
		115				120						125			
Ile	Pro	Leu	Glu	Thr	Gly	Gln	Lys	Gln	Tyr	Asn	Val	Asp	Tyr	Lys	Leu
		130				135						140			
Glu	Thr	Tyr	Leu	Lys	Ile	Ala	Arg	Leu	Tyr	Leu	Glu	Asp	Asp	Asp	Pro
145				150						155				160	
Val	Gln	Ala	Glu	Ala	Tyr	Ile	Asn	Arg	Ala	Ser	Leu	Leu	Gln	Asn	Glu
			165					170						175	
Ser	Thr	Asn	Glu	Gln	Leu	Gln	Ile	His	Tyr	Lys	Val	Cys	Tyr	Ala	Arg

```

      180      185      190
Val Leu Asp Tyr Arg Arg Lys Phe Ile Glu Ala Ala Gln Arg Tyr Asn
      195      200      205
Glu Leu Ser Tyr Lys Thr Ile Val His Glu Ser Glu Arg Leu Glu Ala
      210      215      220
Leu Lys His Ala Leu His Cys Thr Ile Leu Ala Ser Ala Gly Gln Gln
      225      230      235      240
Arg Ser Arg Met Leu Ala Thr Leu Phe Lys Asp Glu Arg Cys Gln Gln
      245      250      255
Leu Ala Ala Tyr Gly Ile Leu Glu Lys Met Tyr Leu Asp Arg Ile Ile
      260      265      270
Arg Gly Asn Gln Leu Gln Glu Phe Ala Ala Met Leu Met Pro His Gln
      275      280      285
Lys Ala Thr Thr Ala Asp Gly Ser Ser Ile Leu Asp Arg Ala Val Ile
      290      295      300
Glu His Asn Leu Leu Ser Ala Ser Lys Leu Tyr Asn Asn Ile Thr Phe
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&lt;211&gt; 5907

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&lt;400&gt; 4929

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<213> Homo sapiens

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<210> 4936

<211> 337

<212> PRT

<213> Homo sapiens

<400> 4936

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 Gly Leu Leu Cys Val Cys Trp Ser Pro Asp Gly Lys Tyr Ile Val Thr  
 35 40 45  
 Gly Gly Glu Asp Asp Leu Val Thr Val Trp Ser Phe Val Asp Cys Arg  
 50 55 60  
 Val Ile Ala Arg Gly His Gly His Lys Ser Trp Val Ser Val Val Ala  
 65 70 75 80  
 Phe Asp Pro Tyr Thr Thr Ser Val Glu Glu Gly Asp Pro Met Glu Phe  
 85 90 95  
 Ser Gly Ser Asp Glu Asp Phe Gln Asp Leu Leu His Phe Gly Glu Ile  
 100 105 110  
 Glu Gln Ile Val His Ser Pro Gly Ser Pro Asn Gly Thr Leu Gln Thr  
 115 120 125  
 Ala Ala Pro Ser Val Thr Tyr Arg Phe Gly Ser Val Gly Gln Asp Thr  
 130 135 140  
 Gln Leu Cys Leu Trp Asp Leu Thr Glu Asp Ile Leu Phe Pro His Gln  
 145 150 155 160  
 Pro Leu Ser Arg Ala Arg Thr His Thr Asn Val Met Asn Ala Thr Ser  
 165 170 175  
 Pro Pro Ala Gly Ser Asn Gly Asn Ser Val Thr Thr Pro Gly Asn Ser  
 180 185 190  
 Val Pro Pro Pro Leu Pro Arg Ser Asn Ser Leu Pro His Ser Ala Val  
 195 200 205  
 Ser Asn Ala Gly Ser Lys Ser Ser Val Met Asp Gly Ala Ile Ala Ser  
 210 215 220  
 Gly Val Ser Lys Phe Ala Thr Leu Ser Leu His Asp Arg Lys Glu Arg  
 225 230 235 240  
 His His Glu Lys Asp His Lys Arg Asn His Ser Met Gly His Ile Ser  
 245 250 255  
 Ser Lys Ser Ser Asp Lys Leu Asn Leu Val Thr Lys Thr Lys Thr Asp  
 260 265 270  
 Pro Ala Lys Thr Leu Gly Thr Pro Leu Cys Pro Arg Met Glu Asp Val  
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<400> 4938																
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			20					25					30			
Val	Ala	Glu	Pro	Trp	Pro	Thr	Arg	Ser	Gln	Gly	Gly	Arg	Gln	Pro	Gly	
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Cys	Thr	Leu	Thr	Leu	Gly	Val	Cys	Ala	Asp	Gly	Arg	Trp	Glu	Glu	Thr	
	50					55					60					
Asp	Gln	Gln	Glu	Val	Phe	Ser	Ser	Gly	Val	Ala	Ser	Pro	Thr	Leu	Asn	
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Leu	Arg	Ala	Ser	Ser	Ser	Pro	Ala	Lys	Ala	Arg	Ala	Leu	Ser	Arg	Pro	

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 <212> DNA  
 <213> Homo sapiens  
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<210> 4940  
 <211> 158  
 <212> PRT  
 <213> Homo sapiens

<400> 4940  
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 35 40 45  
 Asp Ser Lys Ala Ser Thr Trp Leu Pro Leu Pro Val Thr Ser Ser Ser  
 50 55 60  
 Ala Glu Pro Ser Arg Pro Asn Ser Cys Pro Pro Ala Cys Ser Pro Ala  
 65 70 75 80  
 Ala Ala Ser Ser Phe Ser Phe Glu Ser Gln Pro Cys Pro Ser Ala Pro



					85					90					95				
Ser	Lys	Ala	Ser	Pro	Ala	Pro	Ala	Ala	Leu	Met	Cys	Gly	Thr	Thr	Ser				
			100					105						110					
Pro	Pro	Ile	Ile	Pro	Ala	Ala	Thr	Glu	Pro	Val	Cys	Ala	Ser	Ser	Arg				
			115				120						125						
Ser	Gly	Arg	Pro	Thr	Ala	Thr	Ala	Cys	Ser	Leu	Gln	Pro	Leu	Leu	Asp				
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<210> 4941

<211> 1718

<212> DNA

<213> Homo sapiens

<400> 4941

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180					
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480					
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720					
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780					
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1080					
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1140					

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<210> 4942

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4942

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Ile	Gln	Val	His	Tyr	His	Ile	Gly	Leu	Asn	Leu	Pro	Gly	Cys	Val	Ala
		20						25					30		
Pro	Pro	Lys	Asp	Thr	Lys	Lys	Gly	Ala	Gln	Pro	Ser	Pro	Phe	Val	Pro
		35					40					45			
Val	Arg	Trp	Val	Val	Lys	Val	Val	Lys	Thr	Leu	Leu	Leu	Arg	Met	Gly
		50				55				60					
Cys	Ser	Tyr	Glu	Thr	Thr	Phe	Leu	Glu	Asp	Gln	Gly	Gly	Trp	Glu	Leu
65					70					75				80	
Met	Glu	Gln	Val	Glu	Ser	His	His	Arg	Gly	Val	Ala	Leu	Leu	Ala	Arg
			85						90					95	
Ala	Met	Val	Gln	Tyr	Ser	Cys	Gln	Glu	Leu	Cys	Arg	Ile	Leu	Tyr	Leu
			100					105					110		
Leu	Ile	Pro	Leu	Leu	Glu	Arg	Gly	Asp	Glu	Lys	His	Arg	Ile	Thr	Ala
		115					120					125			
Thr	Ala	Phe	Phe	Val	Glu	Leu	Gln	Met	Glu	Gln	Val	Arg	Arg	Ile	
		130				135				140					
Pro	Glu	Glu	Tyr	Ser	Leu	Gly	Arg	Met	Ala	Glu	Gly	Leu	Ser	His	His
145					150					155				160	
Asp	Pro	Ile	Met	Lys	Val	Leu	Ser	Ile	Arg	Gly	Leu	Val	Ile	Leu	Ala
			165						170					175	
Arg	Arg	Ser	Glu	Lys	Thr	Ala	Lys	Val	Lys	Ala	Leu	Leu	Pro	Ser	Met
			180					185					190		
Val	Lys	Gly	Leu	Lys	Asn	Met	Asp	Gly	Met	Leu	Val	Val	Glu	Ala	Val
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His	Asn	Leu	Lys	Ala	Val	Phe	Lys	Gly	Arg	Asp	Gln	Lys	Leu	Met	Asp

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Asp Ala Arg Glu Val Val Arg Ser Ser Cys Ile Asn Leu Tyr Gly Lys
      245              250              255
Val Val Gln Lys Leu Arg Ala Pro Arg Thr Gln Ala Met Glu Glu Gln
      260              265              270
Leu Val Ser Thr Leu Val Pro Leu Leu Leu Thr Met Gln Glu Gly Asn
      275              280              285
Ser Lys Val Ser Gln Lys Cys Val Lys Thr Leu Leu Arg Cys Ser Tyr
      290              295              300
Phe Met Ala Trp Glu Leu Pro Lys Arg Ala Tyr Ser Arg Lys Pro Trp
305              310              315              320
Asp Asn Gln Gln Gln Thr Val Ala Lys Ile Cys Lys Cys Leu Val Asn
      325              330              335
Thr His Arg Asp Ser Ala Phe Ile Phe Leu Ser Gln Ser Leu Glu Tyr
      340              345              350
Ala Lys Asn Ser Arg Ala Ser Leu Arg Lys Cys Ser Val Met Phe Ile
      355              360              365
Gly Ser Leu Val Pro Cys Met Glu Ser Ile Met Thr Glu Asp Arg Leu
      370              375              380
Asn Glu Val Lys Ala Ala Leu Asp Asn Leu Arg His Asp Pro Glu Ala
385              390              395              400
Ser Val Cys Ile Tyr Ala Ala Gln Val Gln Asp His Ile Leu Ala Ser
      405              410              415
Cys Trp Gln Asn Ser Trp Leu Pro His Gly Asn Ser Trp Val Cys Tyr
      420              425              430
Ser Ala Thr Thr His Arg Trp Ser Pro Ser Cys Glu Asn Leu Pro Thr
      435              440              445
Ser His Gln Arg Arg Ser Trp Ile Met Gln Ala Leu Gly Ser Trp Lys
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Met Ser Leu Lys Lys
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<210> 4943  
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 <212> DNA  
 <213> Homo sapiens

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180
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300
cagtttctct gctcatcaca cggccttcgg cactgtagct ttgggtggtg ggctgcagat
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420

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&lt;210&gt; 4944

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4944

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Arg	Leu	Phe	Gly	Glu	Val	Thr	Arg	Pro	Thr	Asn	Ser	Lys	Ser	Met	Lys
			20					25				30			
Val	Val	Lys	Leu	Phe	Ser	Glu	Leu	Pro	Leu	Ala	Lys	Lys	Lys	Glu	Thr
		35				40					45				
Tyr	Asp	Trp	Tyr	Pro	Asn	His	His	Thr	Tyr	Ala	Glu	Leu	Met	Gln	Thr
	50				55				60						
Leu	Arg	Phe	Leu	Gly	Leu	Tyr	Arg	Asp	Glu	His	Gln	Asp	Phe	Met	Asp
65			70					75				80			
Glu	Gln	Lys	Arg	Leu	Lys	Lys	Leu	Arg	Gly	Lys	Glu	Lys	Pro	Lys	Lys
		85				90					95				
Gly	Glu	Gly	Lys	Arg	Ala	Ala	Lys	Arg	Lys						
		100				105									

&lt;210&gt; 4945

&lt;211&gt; 1792

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4945

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1792

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 <211> 197  
 <212> PRT  
 <213> Homo sapiens

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 Pro Pro Gly Gln Glu Tyr Arg Met Tyr Asn Thr Tyr Asp Val His Phe  
 35 40 45  
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 50 55 60  
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 65 70 75 80  
 Arg Arg Tyr Leu Met Ser Gly Val Met Ala Pro Val Lys Arg Arg Asn  
 85 90 95  
 Val Ile Pro His Asp Ile Gly Asp Pro Asp Asp Glu Pro Trp Leu Arg  
 100 105 110  
 Val Asn Ala Tyr Leu Ile His Asp Thr Ala Asp Trp Lys Asp Leu Asn  
 115 120 125  
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 130 135 140  
 Gln Asn Phe Leu Lys Asp Met Trp Pro Val Cys Leu Val Arg Asp Ala  
 145 150 155 160  
 His Ala Val Ala Ser Val Pro Gly Val Trp Leu Val Ser Gly Lys Ser  
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 <211> 2060  
 <212> DNA  
 <213> Homo sapiens

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840  
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900  
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1920  
gtgtcacatg acaccagcat gcattgcagg attattagt tattttgagt ctgtaaaaat  
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2040

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2060

<210> 4948  
<211> 127  
<212> PRT  
<213> Homo sapiens

<400> 4948  
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1 5 10 15  
Met Leu Pro His Asn Ile Pro Ser Ser Leu Ser Leu Leu Thr Ser Met  
20 25 30  
Val Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn  
35 40 45  
Trp Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu  
50 55 60  
Leu Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg  
65 70 75 80  
Phe Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala  
85 90 95  
Lys Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly  
100 105 110  
Ala Ala Val Thr Leu Lys Asn Leu Thr Xaa Leu Asn Gln Arg Arg  
115 120 125

<210> 4949  
<211> 1259  
<212> DNA  
<213> Homo sapiens

<400> 4949  
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120  
gcttgggagg aaaagacgct gtccaagtac gagtccagcg agattcgctt gctggagatc  
180  
ctggaggggc tgtgcgagag cagcgacttc gaatgcaatc agatgctaga ggcgcaggag  
240  
gagcacctgg aggcctggtg gctgcagctg aagagcgaat atcctgactt attcgagtgg  
300  
ttttgtgtga agacactgaa agtgtgctgc tctccaggaa cctacggctc cgactgtctc  
360  
gcatgccagg gcggatccca gaggccctgc agcgggaatg gccactgcag cggagatggg  
420  
agcagacagg gcgacgggtc ctgccggtgc cacatggggt accagggccc gctgtgcact  
480  
gactgcatgg acggctactt cagctcgctc cggaacgaga cccacagcat ctgcacagcc  
540  
tgtgacgagt cctgcaagac gtgctcgggc ctgaccaaca gagactgcgg cgagtgtgaa  
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<210> 4950
<211> 318
<212> PRT
<213> Homo sapiens
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4400> 4950																	
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Arg	Gly	Leu	Val	Asp	Lys	Phe	Asn	Gln	Gly	Met	Val	Asp	Thr	Ala	Lys		
			20					25					30				
Lys	Asn	Phe	Gly	Gly	Gly	Asn	Thr	Ala	Trp	Glu	Glu	Lys	Thr	Leu	Ser		
		35				40						45					
Lys	Tyr	Glu	Ser	Ser	Glu	Ile	Arg	Leu	Leu	Glu	Ile	Leu	Glu	Gly	Leu		
	50					55					60						
Cys	Glu	Ser	Ser	Asp	Phe	Glu	Cys	Asn	Gln	Met	Leu	Glu	Ala	Gln	Glu		
65				70					75					80			
Glu	His	Leu	Glu	Ala	Trp	Trp	Leu	Gln	Leu	Lys	Ser	Glu	Tyr	Pro	Asp		
				85					90					95			
Leu	Phe	Glu	Trp	Phe	Cys	Val	Lys	Thr	Leu	Lys	Val	Cys	Cys	Ser	Pro		
			100					105					110				
Gly	Thr	Tyr	Gly	Pro	Asp	Cys	Leu	Ala	Cys	Gln	Gly	Gly	Ser	Gln	Arg		
		115				120						125					
Pro	Cys	Ser	Gly	Asn	Gly	His	Cys	Ser	Gly	Asp	Gly	Ser	Arg	Gln	Gly		
	130					135					140						
Asp	Gly	Ser	Cys	Arg	Cys	His	Met	Gly	Tyr	Gln	Gly	Pro	Leu	Cys	Thr		
145				150						155				160			
Asp	Cys	Met	Asp	Gly	Tyr	Phe	Ser	Ser	Leu	Arg	Asn	Glu	Thr	His	Ser		
				165					170					175			
Ile	Cys	Thr	Ala	Cys	Asp	Glu	Ser	Cys	Lys	Thr	Cys	Ser	Gly	Leu	Thr		
		180						185					190				
Asn	Arg	Asp	Cys	Gly	Glu	Cys	Glu	Val	Gly	Trp	Val	Leu	Asp	Glu	Gly		
		195				200						205					
Ala	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Ala	Glu	Pro	Pro	Pro	Cys	Ser		

210	215	220
Ala Ala Gln Phe Cys Lys Asn Ala Asn Gly Ser Tyr Thr Cys Glu Glu		
225	230	235
Cys Asp Ser Ser Cys Val Gly Cys Thr Gly Glu Gly Pro Gly Asn Cys		240
	245	250
Lys Glu Cys Ile Ser Gly Tyr Ala Arg Glu His Gly Gln Cys Ala Asp		255
	260	265
Val Asp Glu Cys Ser Leu Ala Glu Lys Thr Cys Val Arg Lys Asn Glu		270
	275	280
Asn Cys Tyr Asn Thr Pro Gly Ser Tyr Val Cys Val Cys Pro Asp Gly		285
	290	295
Phe Glu Glu Xaa Gly Arg Cys Leu Cys Ala Ala Gly Arg Gly		300
305	310	315

&lt;210&gt; 4951

&lt;211&gt; 1835

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4951

```

ngagctctgg cgctcagctg gccccacca ctctcacctg ccgcctgggc tcgctcccg
60
cttctctcca gccgtcgact ccacgcctcg cgcctctcgc gagaggagga ggctccacg
120
agcgacgact tccgcctcc ttagggcgt ggtccgtag ctaccggtcg cgctcgccgtg
180
ggcgacgtgc ccgcttccaa aatggcggcg gcggcggtat ctggtgcgct tgccggggcg
240
ggctggaggc tcttcagct gcgatgctg cccgtggccc gttgccgaca agccctgggtg
300
ccgcgtgcct tccatgcttc agctgtgggg ctaaggtctt cagatgagca gaagcagcag
360
cctcccaact cattttctca gcagcattct gagacacagg gggcagaaaa acctgatcca
420
gagtcttctc attcaccctc caggtatata gaccaggcg gcgaggagga ggaggactat
480
gaaagtgagg agcagttgca gcaccgcac ctgacggcag cccttgagtt tgtgcccgcc
540
cacgggtgga cagcagaggc gattgcagaa ggagcccagt ctctgggtct ctccagtga
600
gcagccagca tgtttggaag gatgggcagt gagctaatac tgcattttgt gaccagtg
660
aatacccggc tcacacgtgt gctagaagag gagcagaagc tggtagagtt gggccaggcg
720
gagaagagga agacagacca gttcctgagg gatgcagtgg aaaccagact gagaatgctg
780
atccataca ttgagcactg gccccgggcc ctcagcatcc tcatgctccc tcacaacac
840
ccgtccagcc tgagcctgct caccagcatg gtggatgaca tgtggcatta cgctggggac
900
cagtccactg attttaactg gtacaccgc cgagccatgc tggctgcat ctacaacaca
960
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1020

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 1200  
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 1835

&lt;210&gt; 4952

&lt;211&gt; 318

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4952

Met Ala Ala Ala Val Ser Gly Ala Leu Gly Arg Ala Gly Trp Arg  
 1 5 10 15  
 Leu Leu Gln Leu Arg Cys Leu Pro Val Ala Arg Cys Arg Gln Ala Leu  
 20 25 30  
 Val Pro Arg Ala Phe His Ala Ser Ala Val Gly Leu Arg Ser Ser Asp  
 35 40 45  
 Glu Gln Lys Gln Gln Pro Pro Asn Ser Phe Ser Gln Gln His Ser Glu  
 50 55 60  
 Thr Gln Gly Ala Glu Lys Pro Asp Pro Glu Ser Ser His Ser Pro Pro  
 65 70 75 80  
 Arg Tyr Thr Asp Gln Gly Gly Glu Glu Glu Asp Tyr Glu Ser Glu  
 85 90 95  
 Glu Gln Leu Gln His Arg Ile Leu Thr Ala Ala Leu Glu Phe Val Pro  
 100 105 110  
 Ala His Gly Trp Thr Ala Glu Ala Ile Ala Glu Gly Ala Gln Ser Leu  
 115 120 125  
 Gly Leu Ser Ser Ala Ala Ala Ser Met Phe Gly Arg Met Gly Ser Glu  
 130 135 140  
 Leu Ile Leu His Phe Val Thr Gln Cys Asn Thr Arg Leu Thr Arg Val

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145          150          155          160
Leu Glu Glu Glu Gln Lys Leu Val Gln Leu Gly Gln Ala Glu Lys Arg
          165          170          175
Lys Thr Asp Gln Phe Leu Arg Asp Ala Val Glu Thr Arg Leu Arg Met
          180          185          190
Leu Ile Pro Tyr Ile Glu His Trp Pro Arg Ala Leu Ser Ile Leu Met
          195          200          205
Leu Pro His Asn Ile Pro Ser Ser Leu Ser Leu Thr Ser Met Val
          210          215          220
Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn Trp
225          230          235          240
Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu Leu
          245          250          255
Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg Phe
          260          265          270
Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala Lys
          275          280          285
Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly Ala
          290          295          300
Ala Val Thr Leu Lys Asn Leu Thr Gly Leu Asn Gln Arg Arg
305          310          315

```

<210> 4953  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

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<400> 4953
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120
ggtgccccct ggtggcagct tgaaggaagg acgggcagtg ggtcgagacc agcggggacc
180
taccgcgcaa aacgcacata aaagctggaa tcagcttggt acagctgcag gtcctctctg
240
tccgatttgg atagaccctc ttgggaccca ctgcaccagg gaaccccaaa tgcagctcag
300
cagcatggga ggagccctgt ctgctggggg tgtctgggat cgtcggagag aggct
355

```

<210> 4954  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

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<400> 4954
Met Ala Gly Gly Arg Gln Asp Arg Arg Ala Gln Ala Trp Thr Pro Leu
1          5          10          15
Ser Ala Trp Gly Cys Leu Ala Ala Ser Pro Val Leu Gly Ala Gly Ile
20          25          30
Thr Trp Pro Arg Val Pro Pro Gly Gly Ser Leu Lys Glu Gly Arg Ala
35          40          45
Val Gly Arg Ser Gln Arg Gly Pro Thr Pro Gln Asn Ala His Lys Ser

```

```

      50              55              60
Trp Asn Gln Leu Val Thr Ala Ala Gly Pro Ser Arg Pro Ile Trp Ile
65              70              75              80
Asp Pro Leu Gly Thr His Cys Thr Arg Glu Pro Gln Met Gln Leu Ser
      85              90              95
Ser Met Gly Gly Ala Leu Ser Ala Gly Gly Val Trp Asp Arg Arg Arg
      100              105              110
Glu Ala

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<210> 4955  
 <211> 364  
 <212> DNA  
 <213> Homo sapiens

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<400> 4955
agatctaagg ccctcgggag agatgggaac tgagcacctg ggtcttagac cggaggagca
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aactgcaaga caggggtggcc ggggacacca gcctccgccc ttctgtgaca taaggacaag
120
agctcagcct gccagggaac aactctgggc aagagatgtg gaaagaaaga gctcangggg
180
gggcacgcat ggcacatctgg ggggacatct gagggcaccc ccacccaacta ttcctccctc
240
caaggtggcc tctgagtgtg aaggcagggg gaagcagaca cctgccctc actctccctc
300
cctaccacat agctaccggg tggggggcgt ccctgggatg attcctgagg gcaggatcca
360
gggg
364

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<210> 4956  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

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<400> 4956
Met Gly Thr Glu His Leu Gly Leu Arg Pro Glu Glu Gln Thr Ala Arg
1              5              10              15
Gln Gly Gly Arg Gly His Gln Pro Pro Phe Cys Asp Ile Arg Thr
      20              25              30
Arg Ala Gln Pro Ala Gln Glu Gln Leu Trp Ala Arg Asp Val Glu Arg
      35              40              45
Lys Ser Ser Xaa Gly Gly Thr His Gly Ile Leu Gly Gly His Leu Arg
      50              55              60
Ala Pro Pro Pro Thr Ile Pro Pro Ser Lys Val Ala Ser Glu Cys Glu
65              70              75              80
Gly Arg Gly Lys Gln Thr Pro Ala Pro His Ser Pro Ser Leu Pro His
      85              90              95
Ser Tyr Arg Val Gly Gly Val Pro Gly Met Ile Pro Glu Gly Arg Ile
      100              105              110
Gln Gly

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<210> 4957  
 <211> 872  
 <212> DNA  
 <213> Homo sapiens

<400> 4957  
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 120  
 tcttgacaag actgtacagg gcttctcacc atacacaaac cctccacagc ccacggctcc  
 180  
 aaccacagc acctcctgca gtccctggagg gaaaaggac agtaacatga agtgtctgaa  
 240  
 gatccatttc accttttttc catgtgaate atgacgcttt caatgcattt cttgacagga  
 300  
 ttctattttg aaagaatgat gctcaatctg taccttttat gcttcttggt tcttctccat  
 360  
 caataatag tcagtcact gcttgtcaga gacacttagc tgctgacagg tcctcataac  
 420  
 ctgactcagg taaactgcc aagatgctt gcacaggatg ctgtcactct tccgtagcac  
 480  
 tgagaatgca aatgcaggac atgaacagta atgacaagaa gccaaacatg tgtatgtttt  
 540  
 actggaactt ccaaggacct ggtaaacacg ccttccactg ggtgatgaga ttaaggtgat  
 600  
 ggactgtcga tcaactaggt ccaaggcctg ggtggctgat gagccaaaga gaaacttcag  
 660  
 cgataacaga tattcatcag gaattcgggc ccgtacttcg cgcgctctcc tgcaccgccg  
 720  
 ccgccatctc gctcaggagc tcctccacaa ccgccggcaa ctacggccat cgcgccgcag  
 780  
 gacacgccct ccacgacgcg gaccgcgcga cgctccagct gactgcgcct acctgtggag  
 840  
 gatcctgacc ccccgccggc ctcgttccga at  
 872

<210> 4958  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

<400> 4958  
 Gln Ile Phe Ile Arg Asn Ser Val Pro Tyr Phe Ala Arg Ser Pro Ala  
 1 5 10 15  
 Pro Pro Pro Pro Ser Arg Ser Gly Ala Pro Pro Gln Pro Pro Ala Thr  
 20 25 30  
 Thr Ala Ile Ala Pro Gln Asp Thr Pro Ser Thr Thr Arg Thr Ala Arg  
 35 40 45  
 Arg Ser Ser  
 50

<210> 4959  
 <211> 449

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4959

acgcgtgtca aggctgggaa tgcaaatggt agtgggtggt tcctttgctg ggggttgatg  
 60  
 cagtgggttg gggggcttcc atttgcagtt gagggccagg tgtttgggtc cttccatgtg  
 120  
 gcagggataa agaggagagc tggcatctgg agtcatgac tgtctgagag gcagtgcctc  
 180  
 cggccaccgt aggatggagg ccagcttcca gccctggctg atgggggaga agcagcgaat  
 240  
 tctccagatg tggataggca gacctttgga agattcactc ggcctccact taaccttggtg  
 300  
 agaccaaagg ccacagcccc atgtgttctg cgtgctgttg aacatgtttg tatttcattg  
 360  
 gcgtggatga taatttggtt gaaaggagag atggtcacca gtggactcag ttaggaagg  
 420  
 cacaaggtc aaccttttcc gtttctaga  
 449

&lt;210&gt; 4960

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4960

Met	Phe	Asn	Ser	Thr	Gln	Asn	Thr	Trp	Gly	Cys	Gly	Leu	Trp	Ser	His
1				5					10					15	
Lys	Val	Lys	Trp	Arg	Pro	Ser	Glu	Ser	Ser	Lys	Gly	Leu	Pro	Tyr	His
			20					25					30		
Ile	Trp	Arg	Ile	Arg	Cys	Phe	Ser	Pro	Ile	Ser	Gln	Gly	Trp	Lys	Leu
			35				40					45			
Ala	Ser	Ile	Leu	Arg	Trp	Pro	Glu	Ala	Leu	Pro	Leu	Arg	Gln	Ile	Met
			50				55				60				
Thr	Pro	Asp	Ala	Ser	Ser	Pro	Leu	Tyr	Pro	Cys	His	Met	Glu	Gly	Pro
					70					75				80	
Lys	His	Leu	Ala	Leu	Asn	Cys	Lys	Trp	Lys	Pro	Pro	Gln	Pro	Leu	His
				85					90					95	
Gln	Pro	Pro	Ala	Lys	Glu	Thr	Thr	Thr	Thr	Ile	Cys	Ile	Pro	Ser	Leu
			100					105					110		
Asp	Thr	Arg													
			115												

&lt;210&gt; 4961

&lt;211&gt; 4737

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4961

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 60  
 tcggccgccc tcacaccct caacgagagc ctgcagcccc tgggggacta tggcgtgggc  
 120

tccaagaaca gcaagcgtgc ccgggagaag cgcgacagcc gcaacatgga agtacaggtc  
180  
acccaggaga tgcgcaacgt cagtataaggc atgggcagca gtgacgagtg gtctgatgtt  
240  
caagacatta ttgactccac gccagagctg gacatgtgtc cagagaccgc cctggaccgc  
300  
acaggaagca gcccacccca gggcatcgtg aacaaagctt tcggcatcaa caccgactcc  
360  
ctgtaccatg agctgtcgac ggcagggtct gaggtcatcg gggatgtgga cgaaggggcc  
420  
gacctcctag gggagtcttc aggaatgggc aaagaagtgg ggaatctgct actggaaaac  
480  
tcacagcttc tggaaaccaa aaacgccttg aatgtggtga agaatgacct gattgccaag  
540  
gtcgaccagc tgtccgggga gcaggaggtg ctgaggggagc agttggaggc tgctaagcag  
600  
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660  
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720  
ctctgtacag aatcggacaa aatccccatg gccagcgcc gccgcttcac gcgggtggag  
780  
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840  
gctgtgcggt ggactgagat gatcagagcg tcccagagagc acccatccgt ccaggagaag  
900  
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960  
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1260  
aacgtgccgg tgccggtgta ctgccgccct ctggtggaga aggacccac catgaagctg  
1320  
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&lt;210&gt; 4962

&lt;211&gt; 1069

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4962

Ala Ala Ala Thr Pro Ser Thr Thr Gly Thr Lys Ser Asn Thr Pro Thr

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Pro Leu Gly Asp Tyr Gly Val Gly Ser Lys Asn Ser Lys Arg Ala Arg
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Glu Lys Arg Asp Ser Arg Asn Met Glu Val Gln Val Thr Gln Glu Met
50           55           60
Arg Asn Val Ser Ile Gly Met Gly Ser Ser Asp Glu Trp Ser Asp Val
65           70           75           80
Gln Asp Ile Ile Asp Ser Thr Pro Glu Leu Asp Met Cys Pro Glu Thr
85           90           95
Arg Leu Asp Arg Thr Gly Ser Ser Pro Thr Gln Gly Ile Val Asn Lys
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Ala Phe Gly Ile Asn Thr Asp Ser Leu Tyr His Glu Leu Ser Thr Ala
115          120          125
Gly Ser Glu Val Ile Gly Asp Val Asp Glu Gly Ala Asp Leu Leu Gly
130          135          140
Glu Phe Ser Gly Met Gly Lys Glu Val Gly Asn Leu Leu Leu Glu Asn
145          150          155          160
Ser Gln Leu Leu Glu Thr Lys Asn Ala Leu Asn Val Val Lys Asn Asp
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Leu Ile Ala Lys Val Asp Gln Leu Ser Gly Glu Gln Glu Val Leu Arg
180          185          190
Gly Glu Leu Glu Ala Ala Lys Gln Ala Lys Val Lys Leu Glu Asn Arg
195          200          205
Ile Lys Glu Leu Glu Glu Glu Leu Lys Arg Val Lys Ser Glu Ala Ile
210          215          220
Ile Ala Arg Arg Glu Pro Lys Glu Glu Ala Glu Asp Val Ser Ser Tyr
225          230          235          240
Leu Cys Thr Glu Ser Asp Lys Ile Pro Met Ala Gln Arg Arg Arg Phe
245          250          255
Thr Arg Val Glu Met Ala Arg Val Leu Met Glu Arg Asn Gln Tyr Lys
260          265          270
Glu Arg Leu Met Glu Leu Gln Glu Ala Val Arg Trp Thr Glu Met Ile
275          280          285
Arg Ala Ser Arg Glu His Pro Ser Val Gln Glu Lys Lys Lys Ser Thr
290          295          300
Ile Trp Gln Phe Phe Ser Arg Leu Phe Ser Ser Ser Ser Ser Pro Pro
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Pro Ala Lys Arg Pro Tyr Pro Ser Val Asn Ile His Tyr Lys Ser Pro
325          330          335
Thr Thr Ala Gly Phe Ser Gln Arg Arg Asn His Ala Met Cys Pro Ile
340          345          350
Ser Ala Gly Ser Arg Pro Leu Glu Phe Phe Pro Asp Asp Cys Thr
355          360          365
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370          375          380
Glu His Val Arg Asn Asp Asp Gly Arg Leu Gln Ala Cys Gly Trp Ser
385          390          395          400
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Thr Arg Met Lys Asn Val Pro Val Pro Val Tyr Cys Arg Pro Leu Val
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Glu Lys Asp Pro Thr Met Lys Leu Trp Cys Ala Ala Gly Val Asn Leu

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 Pro Lys Ser Ala His Ala Ser Pro Glu Lys Lys Lys Ala Lys Glu Leu  
 485 490 495  
 Pro Glu Met Asp Ala Thr Ser Ser Arg Val Trp Ile Leu Thr Ser Thr  
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 Leu Thr Thr Ser Lys Val Val Ile Ile Asp Ala Asn Gln Pro Gly Thr  
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 Val Val Asp Gln Phe Thr Val Cys Asn Ala His Val Leu Cys Ile Ser  
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 580 585 590  
 Ser Asn Cys Ser Ser Arg Gly Asp Thr Pro Val Leu Asp Lys Gly Gln  
 595 600 605  
 Gly Glu Val Ala Thr Ile Ala Asn Gly Lys Val Asn Pro Ser Gln Ser  
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 Thr Glu Glu Ala Thr Glu Ala Thr Glu Val Pro Asp Pro Gly Pro Ser  
 625 630 635 640  
 Glu Pro Glu Thr Ala Thr Leu Arg Pro Gly Pro Leu Thr Glu His Val  
 645 650 655  
 Phe Thr Asp Pro Ala Pro Thr Pro Ser Ser Gly Pro Gln Pro Gly Ser  
 660 665 670  
 Glu Asn Gly Pro Glu Pro Asp Ser Ser Ser Thr Arg Pro Glu Pro Glu  
 675 680 685  
 Pro Ser Gly Asp Pro Thr Gly Ala Gly Ser Ser Ala Ala Pro Thr Met  
 690 695 700  
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 Asn Trp Lys Lys Cys Leu His Ser Ile Lys Leu Lys Asp Ser Val Leu  
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 Ser Leu Val His Val Lys Gly Arg Val Leu Val Ala Leu Ala Asp Gly  
 740 745 750  
 Thr Leu Ala Ile Phe His Arg Gly Glu Asp Gly Gln Trp Asp Leu Ser  
 755 760 765  
 Asn Tyr His Leu Met Asp Leu Gly His Pro His His Ser Ile Arg Cys  
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 785 790 795 800  
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 His Pro Arg Arg Glu Ser Gln Val Arg Gln Leu Ala Trp Ile Gly Asp  
 820 825 830  
 Gly Val Trp Val Ser Ile Arg Leu Asp Ser Thr Leu Arg Leu Tyr His  
 835 840 845  
 Ala His Thr His Gln His Leu Gln Asp Val Asp Ile Glu Pro Tyr Val  
 850 855 860  
 Ser Lys Met Leu Gly Thr Gly Lys Leu Gly Phe Ser Phe Val Arg Ile

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Thr	Ala	Leu	Leu	Val	Ala	Gly	Ser	Arg	Leu	Trp	Val	Gly	Thr	Gly	Asn
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Gly	Val	Val	Ile	Ser	Ile	Pro	Leu	Thr	Glu	Thr	Val	Val	Leu	His	Arg
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Gly	Gln	Leu	Gly	Leu	Arg	Ala	Asn	Lys	Thr	Ser	Pro	Thr	Ser	Gly	
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&lt;210&gt; 4963

&lt;211&gt; 1575

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4963

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<210> 4964

<211> 304

<212> PRT

<213> Homo sapiens

<400> 4964

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			20					25					30		
Leu	Leu	Gln	Gln	Glu	Leu	Phe	Gln	Lys	Cys	His	Pro	Val	His	Phe	Leu
		35					40					45			
Asn	Ser	Arg	Ala	Leu	Gly	Val	Met	Asp	Lys	Ser	Thr	Ala	Ile	Pro	Lys
		50				55					60				
Ala	Ser	Ser	Ser	Glu	Ser	Leu	Ser	Ala	Lys	Thr	Cys	Ser	Leu	Phe	Leu
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Pro	Asn	Tyr	Val	Gln	Asp	Lys	Tyr	Leu	Leu	Gln	Leu	Leu	Arg	Asn	Ala
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Asp	Asp	Val	Ser	Thr	Trp	Val	Ala	Ala	Glu	Ile	Val	Thr	Ser	His	Thr
		100					105					110			
Ser	Lys	Leu	Gln	Val	Asn	Leu	Leu	Ser	Lys	Phe	Xaa	Leu	Ile	Ala	Lys

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	130		135		140
Gly	Leu Glu His Leu Ala Val Arg Gln Ser Pro Ala Trp Arg Ile Leu				
	145		150		155
Pro	Ala Lys Ile Ala Glu Val Met Glu Glu Leu Lys Ala Val Glu Val				
	165		170		175
Phe	Leu Lys Ser Asp Ser Leu Cys Leu Met Glu Gly Arg Arg Phe Arg				
	180		185		190
Ala	Gln Pro Thr Leu Pro Ser Ala His Leu Leu Ala Met His Ile Gln				
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Gln	Leu Glu Thr Gly Gly Phe Thr Met Thr Asn Gly Ala His Arg Trp				
	210		215		220
Ser	Lys Leu Arg Asn Ile Ala Lys Val Val Ser Gln Val His Ala Phe				
	225		230		235
Gln	Glu Asn Pro Tyr Thr Phe Ser Pro Asp Pro Lys Leu Gln Ser Tyr				
	245		250		255
Leu	Lys Gln Arg Ile Ala Arg Phe Ser Gly Ala Asp Ile Ser Thr Leu				
	260		265		270
Ala	Ala Asp Ser Arg Ala Asn Phe His Gln Val Ser Ser Glu Lys His				
	275		280		285
Ser	Arg Lys Ile Gln Asp Lys Leu Arg Arg Met Lys Ala Thr Phe Gln				
	290		295		300

&lt;210&gt; 4965

&lt;211&gt; 1474

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4965

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<210> 4966

<211> 212

<212> PRT

<213> Homo sapiens

<400> 4966

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Leu	Ile	Leu	Lys	Trp	Glu	Thr	Leu	Asn	Asp	Ala	Gly	Phe	Thr	Thr	Ala
	35					40					45				
Asn	Asn	Ile	Ala	Asn	Leu	Lys	Ile	Ser	Leu	Leu	Asn	Lys	Asp	Lys	Ile
	50				55					60					
Glu	Leu	Asp	Ser	Ser	Ser	Pro	Ala	Ser	Lys	Glu	Asn	Glu	Glu	Lys	Val
65					70				75					80	
Cys	Leu	Glu	Tyr	Asn	Glu	Glu	Leu	Glu	Lys	Leu	Cys	Glu	Glu	Leu	Gln
			85					90					95		
Ala	Thr	Leu	Asp	Gly	Leu	Thr	Lys	Ile	Gln	Val	Lys	Met	Glu	Lys	Leu
		100					105					110			
Ser	Ser	Thr	Thr	Lys	Gly	Ile	Cys	Glu	Leu	Glu	Asn	Tyr	His	Tyr	Gly
	115					120					125				
Glu	Glu	Ser	Lys	Arg	Pro	Pro	Leu	Phe	His	Thr	Trp	Pro	Thr	Thr	His
	130					135					140				
Phe	Tyr	Glu	Val	Ser	His	Lys	Leu	Leu	Glu	Met	Tyr	Arg	Lys	Glu	Leu
145					150					155				160	
Leu	Leu	Lys	Arg	Thr	Val	Ala	Lys	Glu	Leu	Ala	His	Thr	Gly	Asp	Pro



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                165                170                175
Asp Leu Thr Leu Ser Tyr Leu Ser Met Trp Leu His Gln Pro Tyr Val
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Glu Ser Asp Ser Arg Leu His Leu Glu Ser Met Leu Leu Glu Thr Gly
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His Arg Ala Leu
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<210> 4967  
 <211> 550  
 <212> DNA  
 <213> Homo sapiens

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300
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<210> 4968  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

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<400> 4968
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Leu Asp Leu Gln Asn Ser Trp Xaa Tyr Thr Arg Glu Pro Pro Cys Pro
35          40          45
Ala Ser Gln
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<210> 4969  
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 <213> Homo sapiens

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&lt;210&gt; 4970

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4970

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Val Ala Leu Asn Met Val Leu Pro Asp Glu Lys Gly Ala Gly Ala Leu
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Pro Phe Leu Pro Gly Val Phe Gly Tyr Ala Val Asn Pro Gln Ala Ala
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Pro Pro Ala Pro Pro Thr Pro Pro Pro Thr Leu Pro Pro Pro Ile
65      70      75      80
Pro Pro Lys Gly Glu Gly Glu Arg Ala Gly Val Glu Arg Thr Gln Lys
85      90      95
Gly Asp Val Gly Xaa Asn Pro Gly Ala Gln Ser Pro Phe His Gln Met
100      105      110
Pro Pro Ser Leu Asn Pro Pro Pro Leu Pro Ala Pro Trp Pro Pro Cys
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Glu Leu Arg Gly Gln Ala Ala Leu Cys Glu Met
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&lt;210&gt; 4971

&lt;211&gt; 2939

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4971

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<211> 558

<212> PRT

<213> Homo sapiens

<400> 4972

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Lys	Thr	Gln	Ala	Glu	Ala	Val	Ala	Glu	Ala	Glu	Leu	Lys	Thr	Glu	Ser
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Val	Thr	Tyr	Arg	Glu	Ala	Met	Ala	Val	Thr	Arg	Glu	Val	Ile	Lys	Val
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Glu	Asp	Thr	Thr	Lys	Thr	Arg	Val	Met	Val	Glu	Thr	Lys	Thr	Lys	Pro
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			100					105					110		
Met	Ser	Arg	Val	Ser	Thr	Val	Thr	Lys	Ser	Glu	Val	Lys	Val	Val	Ala
		115				120						125			
Val	Ile	Glu	Ala	Asn	Ile	Arg	Ser	Tyr	Ala	Lys	Ser	His	Asp	Lys	Ala
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Lys	Ser	Ser	Asp	Glu	Asp	Glu	Glu	Asn	Ile	Cys	Ser	Trp	Phe	Trp	Thr
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Gly	Glu	Glu	Pro	Ser	Val	Gly	Ser	Trp	Phe	Trp	Pro	Glu	Glu	Glu	Thr
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Ser	Arg	Ala	Arg	Tyr	Ile	Val	Leu	Val	Pro	Val	Glu	Gly	Gly	Glu	Gln
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                275                280                285
Glu Lys Tyr Gly Pro Asn Pro Lys Ala Cys His Cys Lys Ser Arg Gly
                290                295                300
Phe Ser Leu Glu Pro Lys Glu Phe Asp Lys Leu Val Ala Leu Leu Lys
305                310                315                320
Leu Thr Lys Asp Pro Phe Ile His Glu Ile Ala Thr Met Ile Met Gly
                325                330                335
Ile Ser Pro Ala Tyr Pro Phe Thr Gln Asp Ile Ile His Asp Val Gly
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Ile Thr Val Met Ile Glu Asn Leu Val Asn Asn Pro Asn Val Lys Glu
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His Pro Gly Ala Leu Ser Met Val Asp Asp Ser Ser Glu Ser Ser Glu
                370                375                380
Glu Pro Lys Ser Gly Glu Ser Tyr Ile His Gln Val Cys Lys Gly Ile
385                390                395                400
Ile Ser Cys Pro Leu Asn Ser Pro Val Gln Leu Ala Gly Leu Lys Leu
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Leu Gly His Leu Ser Ile Lys Phe Glu Asp His Tyr Val Ile Thr Ser
                420                425                430
Tyr Ile Pro Asp Phe Leu Thr Leu Leu Asn Lys Gly Ser Val Lys Thr
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Lys Phe Tyr Val Leu Lys Val Phe Ser Cys Leu Ser Lys Asn His Ala
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465                470                475                480
Pro Phe Asn Lys Asn Glu Ser Lys Ala Asn Ile Leu Asn Ile Ile Glu
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                500                505                510
Thr Lys Glu Lys Phe Thr Lys Ser Glu Leu Ile Ser Ile Phe Gln Glu
                515                520                525
Ala Lys Gln Phe Gly Gln Lys Leu Gln Asp Leu Ala Glu His Ser Asp
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&lt;210&gt; 4973

&lt;211&gt; 3555

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4973

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<210> 4974  
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 <212> PRT  
 <213> Homo sapiens

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 Gln Asp Gly Ser Leu Asp Leu Asn Ala Ala Glu Ser Gly Val Gln His  
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 <212> DNA  
 <213> Homo sapiens

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 1111

&lt;210&gt; 4976

&lt;211&gt; 298

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4976

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Gly	Asp	Glu	Ile	Gln	Ile	Leu	Ser	Asn	Leu	Val	Met	Glu	Glu	Leu	Leu
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Pro	Thr	Leu	Gln	Thr	Asp	Leu	Leu	Pro	Lys	Met	Lys	Gly	Lys	Lys	Asn
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Asp	Arg	Lys	Arg	Thr	Trp	Leu	Gly	Leu	Leu	Glu	Ala	Tyr	Thr	Leu	
65				70					75				80		
Val	Gln	His	Gln	Val	Ser	Glu	Gly	Leu	Ser	Ala	Leu	Lys	Glu	Glu	Cys
		85						90					95		
Arg	Ala	Leu	Thr	Lys	Gly	Leu	Glu	Gly	Thr	Ile	Arg	Ser	Asp	Met	Asp
		100						105					110		
Gln	Ile	Val	Asn	Ser	Lys	Asn	Tyr	Leu	Ile	Gly	Lys	Ile	Lys	Ala	Met
	115					120						125			
Val	Ala	Gln	Pro	Ala	Glu	Lys	Ser	Cys	Leu	Glu	Ser	Val	Gln	Pro	Phe

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Ser Glu Val Arg Val Leu Phe Glu Lys Glu Val Asn Glu Val Ser Gln		160
	165	170
Asn Phe Gln Thr Thr Lys Asp Ser Val Gln Leu Lys Glu His Leu Asp		175
	180	185
Arg Leu Met Asn Leu Pro Leu His Ser Val Lys Met Glu Pro Cys Tyr		190
	195	200
Thr Lys Val Asn Leu Leu His Glu Arg Leu Gln Asp Leu Lys Ser Arg		205
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Phe Arg Phe Pro His Ile Asp Leu Val Val Gln Arg Thr Gln Asn Tyr		220
225	230	235
Met Gln Glu Leu Met Glu Asn Ala Val Phe Thr Phe Glu Gln Leu Leu		240
	245	250
Ser Pro His Leu Gln Gly Glu Ala Ser Lys Thr Ala Phe Ser Ile Glu		255
	260	265
Lys Val Lys Leu Arg Val Leu Lys Gln Tyr Asp Tyr Asp Ser Ser Thr		270
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Ile Arg Lys Lys Ile Phe Gln Glu Ala Leu		285
290	295	

&lt;210&gt; 4977

&lt;211&gt; 3309

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4977

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&lt;210&gt; 4978

&lt;211&gt; 792

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4978

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 Gln Ala Pro Ala Leu Cys Ser Val Ser Phe Ser Asn Pro Glu Gly Tyr  
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 Ile Asp Ser Ser Asp Tyr Pro Leu Leu Pro Leu Asn Asn Phe Leu Glu  
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 Cys Thr Tyr Asn Val Thr Val Tyr Thr Gly Tyr Gly Val Glu Leu Gln  
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 Val Lys Ser Val Asn Leu Ser Asp Gly Glu Leu Leu Ser Ile Arg Gly  
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 Val Asp Gly Pro Thr Leu Thr Val Leu Ala Asn Gln Thr Leu Leu Val

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Ala Phe Met Leu Ser Cys Asn Phe Pro Arg Arg Pro Asp Ser Gly Asp
      165      170      175
Val Thr Val Met Asp Leu His Ser Gly Gly Val Ala His Phe His Cys
      180      185      190
His Leu Gly Tyr Glu Leu Gln Gly Ala Lys Met Leu Thr Cys Ile Asn
      195      200      205
Ala Ser Lys Pro His Trp Ser Ser Gln Glu Pro Ile Cys Ser Ala Pro
      210      215      220
Cys Gly Gly Ala Val His Asn Ala Thr Ile Gly Arg Val Leu Ser Pro
      225      230      235      240
Ser Tyr Pro Glu Asn Thr Asn Gly Ser Gln Phe Cys Ile Trp Thr Ile
      245      250      255
Glu Ala Pro Glu Gly Gln Lys Leu His Leu His Phe Glu Arg Leu Leu
      260      265      270
Leu His Asp Lys Asp Arg Met Thr Val His Ser Gly Gln Thr Asn Lys
      275      280      285
Ser Ala Leu Leu Tyr Asp Ser Leu Gln Thr Glu Ser Val Pro Phe Glu
      290      295      300
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      305      310      315      320
Gln Ala Arg Ala Ala Ser Thr Phe Asn Ile Arg Phe Glu Ala Phe Glu
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Ser Asp Pro Thr Tyr Asn Ile Gly Thr Ile Val Glu Phe Thr Cys Asp
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Pro Gly His Ser Leu Glu Gln Gly Pro Ala Ile Ile Glu Cys Ile Asn
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      405      410      415
Trp Pro Glu Pro Tyr Val Glu Gly Glu Asp Cys Ile Trp Lys Ile His
      420      425      430
Val Gly Glu Glu Lys Arg Ile Phe Leu Asp Ile Gln Phe Leu Asn Leu
      435      440      445
Ser Asn Ser Asp Ile Leu Thr Ile Tyr Asp Gly Asp Glu Val Met Pro
      450      455      460
His Ile Leu Gly Gln Tyr Leu Gly Asn Ser Gly Pro Gln Lys Leu Tyr
      465      470      475      480
Ser Ser Thr Pro Asp Leu Thr Ile Gln Phe His Ser Asp Pro Ala Gly
      485      490      495
Leu Ile Phe Gly Lys Gly Gln Gly Phe Ile Met Asn Tyr Ile Glu Val
      500      505      510
Ser Arg Asn Asp Ser Cys Ser Asp Leu Pro Glu Ile Gln Asn Gly Trp
      515      520      525
Lys Thr Thr Ser His Thr Glu Leu Val Arg Gly Ala Arg Ile Thr Tyr
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<212> DNA
<213> Homo sapiens
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&lt;210&gt; 4980

&lt;211&gt; 266

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4980

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 20 25 30  
 Leu Arg Thr Leu Gly Ser Ser Gly Ser Glu Ser Ser Thr Pro Glu Asn  
 35 40 45  
 Val Gly Pro Pro Phe Leu Met Asp Glu Asn Ser Trp Phe Asn Lys Cys  
 50 55 60  
 Lys Arg Val Lys Gln Lys Tyr Gln Leu Thr Leu Glu Gln Lys Gly Tyr  
 65 70 75 80  
 Leu Glu Glu Leu Leu Arg Leu Arg Glu Asn Gln Leu Ser Glu Ser Val  
 85 90 95  
 Ser Gln Asn Lys Ile Leu Leu Gln Arg Ile Glu Asp Ser Asp Leu Ala  
 100 105 110  
 His Lys Leu Glu Lys Glu Gln Leu Glu Tyr Ile Ile Val Glu Leu Gln  
 115 120 125  
 Asp Gln Leu Thr Val Leu Lys Asn Asn Asp Leu Arg Ser Arg Gln Glu  
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 Lys Gln Asp Thr Leu Asn Val Met Ser Glu Gly Lys Glu Asp Thr Pro  
 210 215 220  
 Ser Leu Leu Gly Leu Cys Gly Ser Leu Thr Ser Val Ala Ser Tyr Lys  
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 Glu Met Thr Ser Pro Gly Leu Thr Pro Ser  
 260 265

&lt;210&gt; 4981

&lt;211&gt; 1902

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4981

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<212> PRT

<213> Homo sapiens

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&lt;210&gt; 4986

&lt;211&gt; 1239

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4986

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4161

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Pro Thr Pro Gln Leu Ser Pro Ala Leu Ser Thr Ile Thr Asp Phe Ser		
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Pro Glu Trp Ser Tyr Pro Glu Gly Gly Val Lys Val Leu Ile Thr Gly		
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 Lys Glu Gln Gln Glu Val Ala Ala Val Ile Gln Arg Cys Tyr Arg  
 1105                      1110                      1115                      1120  
 Lys Tyr Lys Gln Leu Thr Trp Ile Ala Leu Lys Phe Ala Leu Tyr Lys  
                          1125                      1130                      1135  
 Lys Met Thr Gln Ala Ala Ile Leu Ile Gln Ser Lys Phe Arg Ser Tyr  
                          1140                      1145                      1150  
 Tyr Glu Gln Lys Arg Phe Gln Gln Ser Arg Arg Ala Ala Val Leu Ile  
                          1155                      1160                      1165  
 Gln Gln His Tyr Arg Ser Tyr Arg Arg Arg Pro Gly Pro Pro His Arg  
                          1170                      1175                      1180  
 Thr Ser Ala Thr Leu Pro Ala Arg Asn Lys Gly Ser Phe Leu Thr Lys  
 1185                      1190                      1195                      1200  
 Lys Gln Asp Gln Ala Ala Arg Lys Ile Met Arg Phe Leu Arg Arg Cys  
                          1205                      1210                      1215  
 Arg His Arg Met Arg Glu Leu Lys Gln Asn Gln Glu Leu Glu Gly Leu  
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 Pro Gln Pro Gly Leu Ala Thr  
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<210> 4987

<211> 357

<212> DNA

<213> Homo sapiens

<400> 4987

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 240  
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<210> 4988

<211> 105

<212> PRT

<213> Homo sapiens

<400> 4988

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			20					25					30		
Phe	Pro	Leu	Cys	Phe	Leu	Gly	Thr	Ala	Phe	Pro	Gln	Gly	Glu	Gln	Arg
		35					40					45			
Pro	Leu	Glu	Ala	Lys	Gly	Leu	Ala	Thr	Gln	Gly	Ala	Ser	Leu	Pro	Leu
	50					55					60				
Leu	Pro	Thr	Val	Thr	Cys	Val	Ser	Ile	Lys	Ser	Trp	Lys	Met	Glu	Cys
65				70					75					80	
Pro	His	Gln	Gly	Asp	Gly	Val	Thr	Thr	Glu	Ala	Gly	Ser	Glu	Leu	Pro
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Gln	Leu	Leu	Gln	Ala	Pro	Trp	Pro	Arg							
			100					105							

<210> 4989

<211> 1723

<212> DNA

<213> Homo sapiens

<400> 4989

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180  
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<210> 4990

<211> 54

<212> PRT

<213> Homo sapiens

<400> 4990

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Lys	Lys	Arg	Phe	Gln	Gln	Ala	Thr	Pro	Gly	Ser	Ala	Pro	Val	Ser	Arg
			20				25					30			
Glu	Gln	Ala	Ser	Phe	Leu	Ala	Ser	Ser	Phe	Ser	Ser	Ser	Ala	Gly	Pro
		35					40					45			
Arg	Thr	Ser	Ile	Ser	Gly										
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<210> 4991

<211> 828

<212> DNA

<213> Homo sapiens

&lt;400&gt; 4991

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720
ctgcgagaca agtacctgga ggagaaggag gacctggagc tcaagtgtc gaccctggga
780
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828

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&lt;210&gt; 4992

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4992

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Leu Val Asn Arg Ile Tyr Asn Leu Gln Glu Glu Ala Arg Gln Ala Glu
      20             25            30
Glu Leu Arg Asp Lys Tyr Leu Glu Glu Lys Glu Asp Leu Glu Leu Lys
      35             40            45
Cys Ser Thr Leu Gly Lys Asp Cys Glu Met Tyr Lys His Arg Met Asn
 50             55            60
Thr Val Met Leu Gln
65

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&lt;210&gt; 4993

&lt;211&gt; 837

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4993

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 420  
 aaccttgggt gtgctgtgcc ccacaaggag acatgatcta tgacccagc tggcaccatc  
 480  
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 837

&lt;210&gt; 4994

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4994

Met	Asp	Arg	Leu	Ala	Arg	Gly	Thr	Gln	Ser	Ile	Pro	Asn	Asp	Ser	Pro
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Ala	Arg	Gly	Glu	Gly	Thr	His	Ser	Glu	Glu	Glu	Gly	Phe	Ala	Met	Asp
			20					25				30			
Glu	Glu	Asp	Ser	Asp	Gly	Glu	Leu	Asn	Thr	Trp	Glu	Leu	Ser	Glu	Gly
		35				40					45				
Thr	Asn	Cys	Pro	Pro	Lys	Glu	Gln	Pro	Gly	Asp	Leu	Phe	Asn	Glu	Asp
	50				55			60							
Trp	Asp	Ser	Glu	Leu	Lys	Ala	Asp	Gln	Gly	Asn	Pro	Tyr	Asp	Ala	Asp
65				70				75				80			
Asp	Ile	Gln	Glu	Ser	Ile	Ser	Gln	Glu	Leu	Lys	Pro	Trp	Val	Cys	Cys
		85						90				95			
Ala	Pro	Gln	Gly	Asp	Met	Ile	Tyr	Asp	Pro	Ser	Trp	His	His	Pro	Pro
	100							105				110			
Pro	Leu	Ile	Pro	Tyr	Tyr	Ser	Lys	Met	Val	Phe	Glu	Thr	Gly	Gln	Phe
	115					120					125				
Asp	Asp	Ala	Glu	Asp											
130															



<210> 4995  
<211> 1595  
<212> DNA  
<213> Homo sapiens

<400> 4995  
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180  
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240  
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300  
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420  
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<210> 4996  
 <211> 217  
 <212> PRT  
 <213> Homo sapiens

<400> 4996  
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 Val Met Asp Gly Val Ile Ser Asp His Glu Cys Gln Glu Leu Gln Arg  
 50 55 60  
 Leu Thr Asn Val Ala Ala Thr Ser Gly Asp Gly Tyr Arg Gly Gln Thr  
 65 70 75 80  
 Ser Pro His Thr Pro Asn Glu Lys Phe Tyr Gly Val Thr Val Phe Lys  
 85 90 95  
 Ala Leu Lys Leu Gly Gln Glu Gly Lys Val Pro Leu Gln Ser Ala His  
 100 105 110  
 Leu Tyr Tyr Asn Val Thr Glu Lys Val Arg Arg Ile Met Glu Ser Tyr  
 115 120 125  
 Phe Arg Leu Asp Thr Pro Leu Tyr Phe Ser Tyr Ser His Leu Val Cys  
 130 135 140  
 Arg Thr Ala Ile Glu Glu Val Gln Ala Glu Arg Lys Asp Asp Ser His  
 145 150 155 160  
 Pro Val His Val Asp Asn Cys Ile Leu Asn Ala Glu Thr Leu Val Cys  
 165 170 175  
 Val Lys Glu Pro Pro Ala Tyr Thr Phe Arg Asp Tyr Ser Ala Ile Leu  
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 Asp Ala Lys Thr Val Thr Ala Glu Val  
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<210> 4997  
 <211> 1888  
 <212> DNA  
 <213> Homo sapiens

<400> 4997  
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1740  
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 1888

<210> 4998  
 <211> 464  
 <212> PRT  
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<400> 4998  
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 Cys Pro Glu Glu Gln Pro His Val Gly Asn Tyr Arg Leu Leu Arg Thr  
 50 55 60  
 Ile Gly Lys Gly Asn Phe Ala Lys Val Lys Leu Ala Arg His Ile Leu  
 65 70 75 80  
 Thr Gly Arg Glu Val Ala Ile Lys Ile Ile Asp Lys Thr Gln Leu Asn  
 85 90 95  
 Pro Ser Ser Leu Gln Lys Leu Phe Arg Glu Val Arg Ile Met Lys Gly  
 100 105 110  
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 115 120 125  
 Lys Thr Leu Tyr Leu Val Met Glu Tyr Ala Ser Ala Gly Glu Pro Pro  
 130 135 140  
 Thr Leu Ser Ala Leu Pro Leu Cys His Leu Pro Leu Pro Leu His Leu  
 145 150 155 160  
 Thr Leu Thr Pro Leu Gly Leu Cys Pro Ala Gly Glu Val Phe Asp Tyr  
 165 170 175  
 Leu Val Ser His Gly Arg Met Lys Glu Lys Glu Ala Arg Ala Lys Phe  
 180 185 190  
 Arg Gln Ile Val Ser Ala Val His Tyr Cys His Gln Lys Asn Ile Val  
 195 200 205  
 His Arg Asp Leu Lys Ala Glu Asn Leu Leu Leu Asp Ala Glu Ala Asn  
 210 215 220  
 Ile Lys Ile Ala Asp Phe Gly Phe Ser Asn Glu Phe Thr Leu Gly Ser  
 225 230 235 240  
 Lys Leu Asp Thr Phe Cys Gly Ser Pro Pro Tyr Ala Ala Pro Glu Leu  
 245 250 255  
 Phe Gln Gly Lys Lys Tyr Asp Gly Pro Glu Val Asp Ile Trp Ser Leu  
 260 265 270  
 Gly Val Ile Leu Tyr Thr Leu Val Ser Gly Ser Leu Pro Phe Asp Gly  
 275 280 285  
 His Asn Leu Lys Glu Leu Arg Glu Arg Val Leu Lys Gly Lys Tyr Arg  
 290 295 300  
 Val Pro Phe Tyr Met Ser Thr Asp Cys Glu Ser Ile Leu Arg Arg Phe  
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<400> 4999  
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420  
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<211> 307

<212> PRT

<213> Homo sapiens

<400> 5000

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Pro	Ala	Glu	Ser	Val	Thr	Val	Trp	Ile	Asp	Pro	Leu	Asp	Ala	Thr	Gln
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Glu	Tyr	Thr	Ala	Trp	Ala	Met	Val	Asp	Gly	Gly	Ser	Asn	Val	Lys	Ala
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Arg	Ser	Ser	Tyr	Asn	Glu	Lys	Thr	Pro	Arg	Ile	Val	Val	Ser	Arg	Ser

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His Ser Gly Met Val Lys Gln Val Ala Leu Gln Thr Phe Gly Asn Gln
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      210      215      220
Leu Asp Val Pro Asp Lys Ser Gln Glu Lys Ala Asp Leu Tyr Ile His
      225      230      235      240
Val Thr Tyr Ile Lys Lys Trp Asp Ile Cys Ala Gly Asn Ala Ile Leu
      245      250      255
Lys Ala Leu Gly Gly His Met Thr Thr Leu Ser Gly Glu Glu Ile Ser
      260      265      270
Tyr Thr Gly Ser Asp Gly Ile Glu Gly Gly Leu Leu Ala Ser Ile Arg
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Gly His Lys
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&lt;210&gt; 5001

&lt;211&gt; 3427

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5001

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&lt;210&gt; 5002

&lt;211&gt; 335

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5002

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Thr Ala Val Tyr His Gln Asp Ala Phe Met Gln Leu Leu His Asp Leu
      165      170      175
Leu Ile Asp Ile Leu Ser Ser Asp Asn Leu Asn Val Glu Lys Glu Glu
      180      185      190
Thr Val Arg Glu Ala Ala Met Leu Trp Leu Glu Tyr Asn Thr Glu Ser
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Arg Ser Gln Tyr Leu Ser Ser Val Leu Ser Gln Ile Arg Ile Asp Ala
 210      215      220
Leu Ser Glu Val Thr Gln Arg Ala Trp Phe Gln Gly Leu Pro Pro Asn
 225      230      235      240
Asp Lys Ser Val Val Val Gln Gly Leu Tyr Lys Ser Met Pro Lys Phe
      245      250      255
Phe Lys Pro Arg Leu Gly Met Thr Lys Glu Glu Met Met Ile Phe Ile
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Glu Ala Ser Ser Glu Asn Pro Cys Ser Leu Tyr Ser Ser Val Cys Tyr
      275      280      285
Ser Pro Gln Ala Glu Lys Val Tyr Lys Leu Cys Ser Pro Pro Ala Asp
 290      295      300
Leu His Lys Val Gly Thr Val Val Thr Pro Asp Asn Asp Ile Tyr Ile
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<210> 5003  
 <211> 3729  
 <212> DNA  
 <213> Homo sapiens

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3729

&lt;210&gt; 5004

&lt;211&gt; 642

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5004

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 35           40           45
Leu Gln Arg Ser Leu Asn Glu Leu Asp Gly Leu Lys Ile Pro Ser Glu
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Ser Gly Glu Lys Leu Lys Val Val Asn Glu Arg Ala Thr Leu Phe Arg
65           70           75           80
Ile Thr Ser Asn Ala Met Ile Asn Ala Cys Arg Asp Phe Leu Glu Leu
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Ala Glu Ile His Ser Arg Lys Trp Gln Arg Ala Leu Gln Tyr Glu Gln
100          105          110
Glu Gln Arg Val His Leu Glu Glu Thr Ile Glu Gln Leu Ala Lys Gln
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Arg Lys Ala Glu Gly Ser Thr Gly Thr Ser Ser Val Asp Trp Ser Ser
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465          470          475          480
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Gln Thr Leu Ser Ala Lys Leu Leu Trp Lys Lys Tyr Pro Leu Pro Glu
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Asn Ala Glu Asn Met Tyr Tyr Phe Ser Glu Leu Ala Leu Thr Leu Asn
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Glu His Glu Glu Gly Val Ala Pro Thr Asp Ser Arg Leu Arg Pro Asp
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Gln Arg Leu Met Glu Lys Gly Arg Trp Asp Glu Ala Asn Thr Glu Lys
545          550          555          560
Gln Arg Leu Glu Glu Lys Gln Arg Leu Ser Arg Arg Arg Arg Leu Glu
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Ala Cys Gly Pro Gly Ser Ser Cys Ser Ser Glu Glu Gly Glu Ala Gly
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Arg Glu Gly Arg Pro Gly Gly Glu Glu Arg Gly Ala Arg Val Gly Val
          595          600          605
Pro Gln Gly Arg Ile Pro Gly Glu Gln Ala Thr Ser Pro Pro Thr Ser
          610          615          620
Pro Leu Cys Leu Pro Ser Arg Glu Gly Gly Gly Cys Leu His Ala Thr
625          630          635          640
Val Val

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<210> 5005

<211> 1120

<212> DNA

<213> Homo sapiens

<400> 5005

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120
ggtaaatggcg gcggcggtgg cggcgacggt ccagacccca tcccctctgt agccggagcc
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cctccgccgc ctgcgccgcc ggtaccccg cgccaacccc gggagtcagg ccctttgggc
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420

```

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 1120

&lt;210&gt; 5006

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5006

Met	Ala	Asp	Phe	Asp	Glu	Ile	Tyr	Glu	Glu	Glu	Glu	Asp	Glu	Glu	Arg
1				5				10					15		
Ala	Leu	Glu	Glu	Gln	Leu	Leu	Lys	Tyr	Ser	Pro	Asp	Pro	Val	Val	Val
		20					25						30		
Arg	Gly	Ser	Gly	His	Val	Thr	Val	Phe	Gly	Leu	Ser	Asn	Lys	Phe	Glu
	35					40						45			
Ser	Glu	Phe	Pro	Ser	Ser	Leu	Thr	Gly	Lys	Val	Ala	Pro	Glu	Glu	Phe
	50					55					60				
Lys	Ala	Ser	Ile	Asn	Arg	Val	Asn	Ser	Cys	Leu	Lys	Lys	Asn	Leu	Pro
65				70					75				80		
Val	Asn	Val	Arg	Trp	Leu	Leu	Cys	Gly	Cys	Leu	Cys	Cys	Cys	Thr	
			85					90					95		
Leu	Gly	Cys	Ser	Met	Trp	Pro	Val	Ile	Cys	Leu	Ser	Lys	Arg	Thr	Arg
			100					105					110		
Arg	Ser	Ile	Glu	Lys	Leu	Leu	Glu	Trp	Glu	Asn	Asn	Arg	Leu	Tyr	His
		115					120					125			
Lys	Leu	Cys	Leu	His	Trp	Arg	Leu	Ser	Lys	Arg	Lys	Cys	Glu	Thr	Asn
	130					135						140			
Asn	Met	Met	Glu	Tyr	Val	Ile	Leu	Ile	Glu	Phe	Leu	Pro	Lys	Thr	Pro
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Ile	Phe	Arg	Pro	Asp											
				165											

<210> 5007  
<211> 2165  
<212> DNA  
<213> Homo sapiens

<400> 5007  
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120  
aacggagatt tatctgaggc tgccatgtgt tacatccata ttgctgccct cattgcagag  
180  
tatctgaaaa gaaagggcat gttctctatg ggatggccag ctgttttgag cattacacca  
240  
aacattaagg aagaaggagc gatgaaagag gattctggaa tgcaagatac accatacaat  
300  
gagaatatcc tggtaggagca gctatacatg tgtgtggagt ttctctggaa gtctgagcga  
360  
tatgaannct cattgctgat gtcaacaagc ccatcattgc tgtctttgag aaacaacgag  
420  
acttcaaaaa attcagatct ctactacgac attcatcggc catatctgaa agtggcagag  
480  
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540  
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600  
tccgagattt cccaaagatt actcaagctc tatgcagata aatttgagc agacaatgtg  
660  
aagataatcc aggattccaa caaggtaaac cccaaggatt tggaccccaa atatgcctac  
720  
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780  
gatttcgaaa tgcaccacaa catcaaccgc tttgtcttcg agacaccctt cacgctgtcg  
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900  
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960  
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tgcacaatgg aagaagtgga catgatcaga ctgcagctca aactgcaagg aagtgtcagc  
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1140  
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1200  
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1380  
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1440



ccaaacctgc actcgagtaa ttagcaaaagc aactccggcc ctacccacgg tctccatctc  
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 1800  
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 1980  
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 2165

&lt;210&gt; 5008

&lt;211&gt; 487

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5008

Leu	Asn	Ser	Ala	Arg	Lys	Ser	Ser	Phe	Phe	Arg	Ile	Pro	Val	Gln	Pro
1			5					10					15		
Gly	Asn	Ser	Tyr	Ala	Ser	Thr	Pro	Glu	Leu	Arg	Arg	Thr	Arg	Leu	Glu
	20						25					30			
Ser	Met	Ala	Lys	Ile	His	Ala	Arg	Asn	Gly	Asp	Leu	Ser	Glu	Ala	Ala
	35					40				45					
Met	Cys	Tyr	Ile	His	Ile	Ala	Ala	Leu	Ile	Ala	Glu	Tyr	Leu	Lys	Arg
	50			55				60							
Lys	Gly	Met	Phe	Ser	Met	Gly	Trp	Pro	Ala	Val	Leu	Ser	Ile	Thr	Pro
	65			70				75					80		
Asn	Ile	Lys	Glu	Glu	Gly	Ala	Met	Lys	Glu	Asp	Ser	Gly	Met	Gln	Asp
		85						90					95		
Thr	Pro	Tyr	Asn	Glu	Asn	Ile	Leu	Val	Glu	Gln	Leu	Tyr	Met	Cys	Val
	100						105					110			
Glu	Phe	Leu	Trp	Lys	Ser	Glu	Arg	Tyr	Glu	Xaa	Ser	Leu	Leu	Met	Ser
	115					120						125			
Thr	Ser	Pro	Ser	Leu	Leu	Ser	Leu	Arg	Asn	Asn	Glu	Thr	Ser	Lys	Asn
	130					135					140				
Ser	Asp	Leu	Tyr	Tyr	Asp	Ile	His	Arg	Ser	Tyr	Leu	Lys	Val	Ala	Glu
	145			150				155					160		
Val	Val	Asn	Ser	Glu	Ala	Ala	Val	Trp	Ser	Leu	Leu	Ser	Cys	Gly	Ile

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      165      170      175
Tyr Gly Gln Gly Phe Phe Glu Glu Glu Glu Gly Lys Glu Tyr Ile Tyr
      180      185      190
Lys Glu Pro Lys Leu Thr Gly Leu Ser Glu Ile Ser Gln Arg Leu Leu
      195      200      205
Lys Leu Tyr Ala Asp Lys Phe Gly Ala Asp Asn Val Lys Ile Ile Gln
      210      215      220
Asp Ser Asn Lys Val Asn Pro Lys Asp Leu Asp Pro Lys Tyr Ala Tyr
      225      230      235      240
Ile Gln Val Thr Tyr Val Thr Pro Phe Phe Glu Glu Lys Glu Ile Glu
      245      250      255
Asp Arg Lys Thr Asp Phe Glu Met His His Asn Ile Asn Arg Phe Val
      260      265      270
Phe Glu Thr Pro Phe Thr Leu Ser Gly Lys Lys His Gly Gly Val Ala
      275      280      285
Glu Gln Cys Lys Arg Arg Thr Ile Leu Thr Thr Ser His Leu Phe Pro
      290      295      300
Tyr Val Lys Lys Arg Ile Gln Val Ile Ser Gln Ser Ser Thr Glu Leu
      305      310      315      320
Asn Pro Ile Glu Val Ala Ile Asp Glu Met Ser Lys Lys Val Ser Glu
      325      330      335
Leu Asn Gln Leu Cys Thr Met Glu Glu Val Asp Met Ile Arg Leu Gln
      340      345      350
Leu Lys Leu Gln Gly Ser Val Ser Val Lys Val Asn Ala Gly Pro Met
      355      360      365
Ala Tyr Ala Arg Ala Phe Leu Glu Glu Thr Asn Ala Lys Lys Tyr Pro
      370      375      380
Asp Asn Gln Val Lys Leu Leu Lys Glu Ile Phe Arg Gln Phe Ala Asp
      385      390      395      400
Ala Cys Gly Gln Ala Leu Asp Val Asn Glu Arg Leu Ile Lys Glu Asp
      405      410      415
Gln Leu Glu Tyr Gln Glu Glu Leu Arg Ser His Tyr Lys Asp Met Leu
      420      425      430
Ser Glu Leu Ser Thr Val Met Asn Glu Gln Leu Cys Arg Gly Pro Cys
      435      440      445
Leu Tyr Ser Phe Cys Ser Ser Val Ser Ser Ile Ser Leu Ser Thr Val
      450      455      460
Ser Lys Ser Asp Tyr Gly Gln Gly Arg Pro Val Lys Ala Arg Ser Gly
      465      470      475      480
Pro Asn Leu His Ser Ser Asn
      485

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&lt;210&gt; 5009

&lt;211&gt; 426

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5009

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120
ccttgagat gtcagcaaa catggcgagg agagcagctt ctctctgtc ccaaagggaa
180

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gcagaagatt aggagctaga tcaagcaaga ctgggggctg caggtgtagg aagtgaatca  
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 300  
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 426

<210> 5010

<211> 119

<212> PRT

<213> Homo sapiens

<400> 5010

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Ser	Tyr	Ala	Cys	Phe	Phe	Phe	Leu	Ser	Pro	Ser	Leu	Leu	Phe	Leu	Pro
		20					25				30				
Asn	Leu	Pro	Gly	Arg	Val	His	Gln	Phe	Phe	Ile	Ser	Pro	Leu	Phe	Ile
	35				40				45						
Leu	Ser	Phe	Glu	Val	Ile	Leu	Ile	His	Phe	Leu	His	Leu	Gln	Pro	Pro
	50				55				60						
Val	Leu	Leu	Asp	Leu	Ala	Pro	Asn	Leu	Leu	Leu	Pro	Phe	Gly	Thr	Glu
65			70					75					80		
Glu	Lys	Leu	Leu	Ser	Ser	Pro	Cys	Phe	Ala	Asp	Ile	Ser	Lys	Gly	Lys
		85					90					95			
Glu	Ser	Thr	Gly	Pro	Phe	Ile	Ser	Cys	Pro	Arg	Pro	Ser	Gln	Gly	Ala
	100						105					110			
Val	Ile	Met	Pro	Lys	Pro	Tyr									
	115														

<210> 5011

<211> 3431

<212> DNA

<213> Homo sapiens

<400> 5011

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 240  
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 300  
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 360  
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 420

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1920  
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1980  
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2040

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3420  
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3431

&lt;210&gt; 5012

&lt;211&gt; 950

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5012

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Met Gly Val Pro Ala Phe Phe Arg Trp Leu Ser Arg Lys Tyr Pro Ser
 1          5          10          15
Ile Ile Val Asn Cys Val Glu Glu Lys Pro Lys Glu Cys Asn Gly Val
 20          25          30
Lys Ile Pro Val Asp Ala Ser Lys Pro Asn Pro Asn Asp Val Glu Phe
 35          40          45
Asp Asn Leu Tyr Leu Asp Met Asn Gly Ile Ile His Pro Cys Thr His
 50          55          60
Pro Glu Asp Lys Pro Ala Pro Lys Asn Glu Asp Glu Met Met Val Ala
 65          70          75          80
Ile Phe Glu Tyr Ile Asp Arg Leu Phe Ser Ile Val Arg Pro Arg Arg
 85          90          95
Leu Leu Tyr Met Ala Ile Asp Gly Val Ala Pro Arg Val Lys Met Asn
100          105          110
Gln Gln Arg Ser Arg Arg Phe Arg Ala Ile Lys Glu Gly Met Glu Ala
115          120          125
Ala Val Glu Lys Gln Arg Val Arg Glu Glu Ile Leu Ala Lys Gly Gly
130          135          140
Phe Leu Pro Pro Glu Glu Ile Lys Glu Arg Phe Asp Ser Asn Cys Ile
145          150          155          160
Thr Pro Gly Thr Glu Phe Met Asp Asn Leu Ala Lys Cys Leu Arg Tyr
165          170          175
Tyr Ile Ala Asp Arg Leu Asn Asn Asp Pro Gly Trp Lys Asn Leu Thr
180          185          190
Val Ile Leu Ser Asp Ala Ser Ala Pro Gly Glu Gly Glu His Lys Ile
195          200          205
Met Asp Tyr Ile Arg Arg Gln Arg Ala Gln Pro Asn His Asp Pro Asn
210          215          220
Thr His His Cys Leu Cys Gly Ala Asp Ala Asp Leu Ile Met Leu Gly
225          230          235          240
Leu Ala Thr His Glu Pro Asn Phe Thr Ile Ile Arg Glu Glu Phe Lys
245          250          255
Pro Asn Lys Pro Lys Pro Cys Gly Leu Cys Asn Gln Phe Gly His Glu
260          265          270
Val Lys Asp Cys Glu Gly Leu Pro Arg Glu Lys Lys Gly Lys His Asp
275          280          285
Glu Leu Ala Asp Ser Leu Pro Cys Ala Glu Gly Glu Phe Ile Phe Leu
290          295          300
Arg Leu Asn Val Leu Arg Glu Tyr Leu Glu Arg Glu Leu Thr Met Ala
305          310          315          320
Ser Leu Pro Phe Thr Phe Asp Val Glu Arg Ser Ile Asp Asp Trp Val
325          330          335
Phe Met Cys Phe Phe Val Gly Asn Asp Phe Leu Pro His Leu Pro Ser
340          345          350
Leu Glu Ile Arg Glu Asn Ala Ile Asp Arg Leu Val Asn Ile Tyr Lys
355          360          365
Asn Val Val His Lys Thr Gly Gly Tyr Leu Thr Glu Ser Gly Tyr Val
370          375          380
Asn Leu Gln Arg Val Gln Met Ile Met Leu Ala Val Gly Glu Val Glu
385          390          395          400
Asp Ser Ile Phe Lys Lys Arg Lys Asp Asp Glu Asp Ser Phe Arg Arg
405          410          415
Arg Gln Lys Glu Lys Arg Lys Arg Met Lys Arg Asp Gln Pro Ala Phe

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Thr Pro Ser Gly Ile Leu Thr Pro His Ala Leu Gly Ser Arg Asn Ser
      435      440      445
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      450      455      460
Arg Met Gln Asn Asn Ser Ser Pro Ser Ile Ser Pro Asn Thr Ser Phe
465      470      475      480
Thr Ser Asp Gly Ser Pro Ser Pro Leu Gly Gly Ile Lys Arg Lys Ala
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Glu Ala Gly Trp Lys Gln Arg Tyr Tyr Lys Asn Lys Phe Asp Val Asp
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Gly Leu Cys Trp Val Leu Arg Tyr Tyr Tyr Gln Gly Cys Ala Ser Trp
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Lys Trp Tyr Tyr Pro Phe His Tyr Ala Pro Phe Ala Ser Asp Phe Glu
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Gly Ile Ala Asp Met Pro Ser Asp Phe Glu Lys Gly Thr Lys Pro Phe
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His His Pro Leu His Asp Phe Ile Leu Glu Leu Tyr Gln Thr Gly Ser
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Ser Pro Val Pro Met Leu Arg Asp Leu Thr Gln Asn Thr Val Val Ser
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Ile Asn Phe Lys Asp Pro Gln Phe Ala Glu Asp Tyr Ile Phe Lys Ala
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Val Met Leu Pro Gly Ala Arg Lys Pro Ala Ala Val Leu Lys Pro Ser
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Asp Trp Glu Lys Ser Ser Asn Gly Arg Gln Trp Lys Pro Gln Leu Gly
785      790      795      800
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Thr Leu Gly His Val Met Pro Arg Gly Ser Gly Thr Gly Ile Tyr Ser
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Asn Ala Ala Pro Pro Pro Val Thr Tyr Gln Gly Asn Leu Tyr Arg Pro
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Leu Leu Arg Gly Gln Ala Gln Ile Pro Lys Leu Met Ser Asn Met Arg

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	885	890
Leu Gln Thr Gln Asn Ala Ala Phe Gln Pro Asn Gln Tyr Gln Met Leu		895
	900	905
Ala Gly Pro Gly Gly Tyr Pro Pro Arg Arg Asp Asp Arg Gly Gly Arg		910
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Gln Gly Tyr Pro Arg Glu Gly Arg Lys Tyr Pro Leu Pro Pro Pro Ser		925
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Gly Arg Tyr Asn Trp Asn		940
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&lt;210&gt; 5013

&lt;211&gt; 2480

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5013

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&lt;210&gt; 5014

&lt;211&gt; 675

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5014

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Phe His Cys Ala Arg Leu Ala Ala Gly Ala Gly Leu Gln Leu Val Asp
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180           185           190
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Arg Tyr Glu His Gly Arg Phe Trp Pro Phe Leu Arg Glu Ser Asp Ala
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225           230           235           240
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Gln Ala Thr Pro Glu Cys Phe Ala His Leu Thr Gln Leu Leu Gln Val
290           295           300
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305           310           315           320
Glu Ser Leu Ala Glu Ser Val Cys Met Thr Val Gln Thr Leu Leu Gly
325           330           335
Asp Pro Ala Pro Pro Leu Ser Gly Pro Met Ala Pro Cys Gln Arg Cys
340           345           350
Glu Gly Ser Ala Leu Glu Ser Ile Gln Ser Ala Arg Ala Ala Gln Ala
355           360           365
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<211> 284

<212> PRT

<213> Homo sapiens

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Ser	Cys	Ala	Ala	Arg	Gln	Cys	Cys	Asn	Arg	Tyr	Ser	Ser	Arg	Arg	Lys
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Glu	Trp	Val	Leu	Asn	Ile	Gly	Arg	Gly	Asn	Phe	Lys	Pro	Lys	Gln	His
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Thr	Val	Ile	Cys	Ser	Glu	His	Phe	Arg	Pro	Glu	Cys	Phe	Ser	Ala	Phe

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Glu	Arg	Gly	Asn	Ala	Ser	Ser	Ser	Gln	Lys	Glu	Lys	Val	Leu	Pro	Glu
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Glu	Glu	Leu	Gln	Leu	Pro	Pro	Asn	Ala	Glu	Gly	His	Val	Lys	Gln	Val
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Val	Met	Arg	Arg	Met	Ser	Ser	Arg	Leu	Arg	Ala	Cys	Lys	Gly	His	Arg
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&lt;210&gt; 5017

&lt;211&gt; 785

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5017

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<210> 5020

<211> 433

<212> PRT

<213> Homo sapiens

<400> 5020

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Gln Ser Pro Gly Asp Ala Leu Arg Arg Val Phe Glu Cys Ile Ser Ser		
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Asp Pro Phe Asp Thr Leu Ala Thr Met Thr Asp Gln Gln Arg Glu Asp		
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      50           55           60
Asn Trp Arg Thr Val Ile Asn Ser Ala Ala Asp Phe Tyr Phe Glu Gly
      65           70           75           80
Asn Ile His Gln Ser Leu Gln Asn Ile Thr Glu Asn Gln Leu Val Gln
      85           90           95
Pro Thr Ile Leu Gln Gln Lys Gly Gly Lys Gly Arg Lys Lys Leu Arg
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&lt;210&gt; 5023

&lt;211&gt; 3482

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5023

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&lt;210&gt; 5024

&lt;211&gt; 323

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5024

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Cys Pro Thr Thr Ser Gly Thr Asp Phe Pro Ser Leu Gln Ser Lys Ala
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&lt;210&gt; 5025

&lt;211&gt; 2596

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5025

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 <213> Homo sapiens

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<210> 5030

<211> 188

<212> PRT

<213> Homo sapiens

<400> 5030

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			20					25					30		
Val	Ile	Leu	Ile	Phe	Cys	Leu	Met	Thr	Leu	Ile	Gly	Asn	Leu	Phe	Ile
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Ile	Ile	Leu	Thr	Tyr	Leu	Asp	Ser	His	Leu	His	Thr	Pro	Leu	Tyr	Phe
		50				55					60				
Phe	Leu	Ser	Asn	Leu	Ser	Phe	Leu	Asp	Leu	Cys	Tyr	Thr	Thr	Ser	Ser
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Ile	Pro	Gln	Leu	Leu	Val	Ser	Leu	Trp	Gly	Val	Glu	Lys	Thr	Ile	Ser
			85						90					95	
Tyr	Ala	Gly	Cys	Met	Val	Gln	Leu	Tyr	Phe	Phe	Leu	Thr	Leu	Gly	Thr
			100					105					110		
Thr	Glu	Cys	Val	Leu	Leu	Val	Val	Met	Ser	Tyr	Asp	Arg	Tyr	Ala	Ala
			115					120				125			
Val	Cys	Arg	Pro	Leu	His	Tyr	Thr	Val	Leu	Met	His	Ser	Arg	Phe	Cys
			130				135				140				
His	Leu	Leu	Ala	Val	Ala	Ser	Trp	Val	Ser	Gly	Phe	Thr	Asn	Pro	Ala
145					150					155				160	
Leu	His	Ser	Ser	Phe	Thr	Phe	Trp	Val	Pro	Leu	Cys	Gly	His	Arg	Gln
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 <212> DNA  
 <213> Homo sapiens

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<210> 5032  
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 Met Gly Val Leu Ala Arg Glu Ala Pro His Leu Glu Lys Gln Pro Ala  
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 Ala Thr His Val Tyr Arg Tyr His Arg Gly Glu Ser Lys Leu His Met  
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<210> 5033  
 <211> 2888

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5033

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&lt;210&gt; 5034

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5034

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 His Phe Tyr Arg Pro Pro Arg Cys Ser His Cys Ser Val Cys Asp Asn  
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 Cys Val Glu Val Thr Gly Lys Phe Arg Gly Gly Val Asn Pro Phe Thr  
 50 55 60  
 Arg Gly Cys Cys Gly Asn Val Glu His Val Leu Cys Ser Pro Leu Ala  
 65 70 75 80  
 Pro Arg Tyr Val Val Glu Pro Pro Arg Leu Pro Leu Ala Val Ser Leu  
 85 90 95  
 Lys Pro Pro Phe Leu Arg Pro Glu Leu Leu Asp Arg Ala Ala Pro Leu  
 100 105 110  
 Lys Val Lys Leu Ser Asp Asn Gly Leu Lys Ala Gly Leu Gly Arg Ser  
 115 120 125  
 Lys Ser Lys Gly Ser Leu Asp Arg Leu Asp Glu Lys Pro Leu Asp Leu  
 130 135 140  
 Gly Pro Pro Leu Pro Pro Lys Ile Glu Ala Gly Thr Phe Ser Ser Asp  
 145 150 155 160  
 Leu Gln Thr Pro Arg Pro Gly Ser Ala Glu Ser Ala Leu Ser Val Gln  
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 Arg Thr Ser Pro Pro Thr Pro Ala Met Tyr Lys Phe Arg Pro Ala Phe  
 180 185 190  
 Pro Thr Gly Pro Lys Val Pro Phe Cys Gly Pro Gly Glu Gln Val Pro  
 195 200 205  
 Gly Pro Asp Ser Leu Thr Leu Gly Asp Asp Asn Ile Arg Ser Leu Asp  
 210 215 220  
 Phe Val Ser Glu Pro Ser Leu Asp Leu Pro Asp Tyr Gly Pro Gly Gly  
 225 230 235 240  
 Leu His Ala Ala Tyr Pro Pro Ser Pro Pro Leu Ser Ala Ser Asp Ala  
 245 250 255  
 Phe Ser Gly Ala Leu Arg Ser Leu Ser Leu Lys Ala Ser Ser Arg Arg  
 260 265 270  
 Gly Gly Asp His Val Ala Leu Gln Pro Leu Arg Ser Glu Gly Gly Pro  
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 Pro Thr Pro His Arg Ser Ile Phe Ala Pro His Ala Leu Pro Asn Arg  
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 Gly His Ala Cys Pro Ala His Pro Ala Val Gly Val Ala Gly Tyr His  
 325 330 335  
 Ser Pro Tyr Leu His Pro Gly Ala Thr Gly Asp Pro Pro Arg Pro Leu  
 340 345 350  
 Pro Arg Ser Phe Ser Pro Val Leu Gly Pro Arg Pro Arg Glu Pro Ser  
 355 360 365  
 Pro Val Arg Tyr Asp Asn Leu Ser Arg Thr Ile Met Ala Ser Ile Gln  
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 Glu Arg Lys Asp Arg Glu Glu Arg Glu Arg Leu Leu Arg Ser Gln Ala  
 385 390 395 400  
 Asp Ser Leu Phe Gly Asp Ser Gly Val Tyr Asp Ala Pro Ser Ser Tyr  
 405 410 415  
 Ser Leu Gln Gln Ala Ser Val Leu Ser Glu Gly Pro Arg Gly Pro Ala

420 425 430  
 Leu Arg Tyr Gly Ser Arg Asp Asp Leu Val Ala Gly Pro Gly Phe Gly  
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 Gly Ala Arg Asn Pro Ala Leu Gln Thr Ser Leu Ser Ser Leu Ser Ser  
 450 455 460  
 Ser Val Ser Arg Ala Pro Arg Thr Ser Ser Ser Ser Leu Gln Ala Asp  
 465 470 475 480  
 Gln Ala Ser Ser Asn Ala Pro Gly Ala Pro Ala Gln Gln Trp Leu Thr  
 485 490 495  
 Gln Val Thr Cys Thr Pro Gly Pro Ala Leu Pro Ala Arg His Ser Pro  
 500 505 510  
 Leu Thr Ile Leu Arg Gly Pro Gln Ser Cys Arg Leu His Pro His Gly  
 515 520 525  
 Pro Pro Arg Ala Thr Ala Leu Ala Asp Arg Ala Glu Gly Pro Pro Ser  
 530 535 540  
 Ala Glu Asp Ser Pro Lys  
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&lt;210&gt; 5035

&lt;211&gt; 2002

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5035

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&lt;210&gt; 5036

&lt;211&gt; 384

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5036

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		20						25					30		
Phe	Gly	Gln	Ala	Glu	Lys	Thr	Glu	Leu	Asp	Ala	His	Phe	Glu	Asn	Leu
		35					40					45			
Leu	Ala	Arg	Ala	Asp	Ser	Thr	Lys	Asn	Trp	Thr	Glu	Lys	Ile	Leu	Arg
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Pro Thr Thr Pro Tyr Gly Lys Thr Leu Ile Lys Val Ala Glu Ala Glu
      115          120          125
Lys Gln Leu Gly Ala Ala Glu Arg Asp Phe Ile His Thr Ala Ser Ile
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Ser Phe Leu Thr Pro Leu Arg Asn Phe Leu Glu Gly Asp Trp Lys Thr
145          150          155          160
Ile Ser Lys Glu Ser Arg Leu Leu Gln Asn Arg Arg Leu Asp Leu Asp
      165          170          175
Ala Cys Lys Ala Arg Leu Lys Lys Ala Lys Ala Ala Glu Ala Lys Ala
      180          185          190
Thr Leu Trp Asn Asp Glu Val Asp Lys Ala Glu Gln Glu Leu Arg Val
      195          200          205
Ala Gln Thr Glu Phe Asp Arg Gln Ala Glu Val Thr Arg Leu Leu Leu
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Glu Gly Ile Ser Ser Thr His Val Asn His Leu Arg Cys Leu His Glu
225          230          235          240
Phe Val Lys Ser Gln Thr Thr Tyr Tyr Ala Gln Cys Tyr Arg His Met
      245          250          255
Leu Asp Leu Gln Lys Gln Leu Gly Ser Ser Gln Gly Ala Ile Ser Arg
      260          265          270
His Leu Arg Gly His His Arg Ala Arg Leu Pro Pro Leu Ser Ser Thr
      275          280          285
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      290          295          300
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Pro Pro Ala Ser Gly Thr Arg Lys Ala Arg Val Leu Tyr Asp Tyr Glu
      325          330          335
Ala Ala Asp Ser Ser Glu Leu Ala Leu Leu Ala Asp Glu Leu Ile Thr
      340          345          350
Val Tyr Ser Leu Pro Gly Met Asp Pro Asp Trp Leu Ile Gly Glu Arg
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Gly Asn Lys Lys Gly Lys Val Pro Val Thr Tyr Leu Glu Leu Leu Ser
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&lt;210&gt; 5037

&lt;211&gt; 2102

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5037

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<210> 5038

<211> 533

<212> PRT

<213> Homo sapiens

<400> 5038

Gly Lys Arg Lys Ile Asp Gln Glu Gly Arg Val Phe Gln Glu Lys Trp  
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 Ile Cys Lys Gln Ser Met Ser Val Ser Lys Glu Tyr Asn Leu Arg Arg  
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 His Tyr Gln Thr Asn His Ser Lys His Tyr Asp Gln Tyr Thr Glu Arg  
 50 55 60  
 Met Arg Asp Glu Lys Leu His Glu Leu Lys Lys Gly Leu Arg Lys Tyr  
 65 70 75 80  
 Leu Leu Gly Ser Ser Asp Thr Glu Cys Pro Glu Gln Lys Gln Val Phe  
 85 90 95  
 Ala Asn Pro Ser Pro Thr Gln Lys Ser Pro Val Gln Pro Val Glu Asp  
 100 105 110  
 Leu Ala Gly Asn Leu Trp Glu Lys Leu Arg Glu Lys Ile Arg Ser Phe  
 115 120 125  
 Val Ala Tyr Ser Ile Ala Ile Asp Glu Ile Thr Asp Ile Asn Asn Thr  
 130 135 140  
 Thr Gln Leu Ala Ile Phe Ile Arg Gly Val Asp Glu Asn Phe Asp Val  
 145 150 155 160  
 Ser Glu Glu Leu Leu Asp Thr Val Pro Met Thr Gly Thr Lys Ser Gly  
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 Asn Glu Ile Phe Ser Arg Val Glu Lys Ser Leu Lys Lys Phe Cys Ile  
 180 185 190  
 Asp Trp Ser Lys Leu Val Ser Val Ala Ser Thr Gly Thr Pro Ala Met  
 195 200 205  
 Val Asp Ala Asn Asn Gly Leu Val Thr Lys Leu Lys Ser Arg Val Ala  
 210 215 220  
 Thr Phe Cys Lys Gly Ala Glu Leu Lys Ser Ile Cys Cys Ile Ile His  
 225 230 235 240  
 Pro Glu Ser Leu Cys Ala Gln Lys Leu Lys Met Asp His Val Met Asp  
 245 250 255  
 Val Val Val Lys Ser Val Asn Trp Ile Cys Ser Arg Gly Leu Asn His  
 260 265 270  
 Ser Glu Phe Thr Thr Leu Leu Tyr Glu Leu Asp Ser Gln Tyr Gly Ser  
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 Leu Leu Tyr Tyr Thr Glu Ile Lys Trp Leu Ser Arg Gly Leu Val Leu

290                      295                      300  
 Lys Arg Phe Phe Glu Ser Leu Glu Glu Ile Asp Ser Phe Met Ser Ser  
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 Arg Gly Lys Pro Leu Pro Gln Leu Ser Ser Ile Asp Trp Ile Arg Asp  
                     325                      330                      335  
 Leu Ala Phe Leu Val Asp Met Thr Met His Leu Asn Ala Leu Asn Ile  
                     340                      345                      350  
 Ser Leu Gln Gly His Ser Gln Ile Val Thr Gln Met Tyr Asp Leu Ile  
 355                      360                      365  
 Arg Ala Phe Leu Ala Lys Leu Cys Leu Trp Glu Thr His Leu Thr Arg  
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 Asn Asn Leu Ala His Phe Pro Thr Leu Lys Leu Ala Ser Arg Asn Glu  
 385                      390                      395                      400  
 Ser Asp Gly Leu Asn Tyr Ile Pro Lys Ile Ala Glu Leu Lys Thr Glu  
                     405                      410                      415  
 Phe Gln Lys Arg Leu Ser Asp Phe Lys Leu Tyr Glu Ser Glu Leu Thr  
                     420                      425                      430  
 Leu Phe Ser Ser Pro Phe Ser Thr Lys Ile Asp Ser Val His Glu Glu  
 435                      440                      445  
 Leu Gln Met Glu Val Ile Asp Leu Gln Cys Asn Thr Val Leu Lys Thr  
 450                      455                      460  
 Lys Tyr Asp Lys Val Gly Ile Pro Glu Phe Tyr Lys Tyr Leu Trp Gly  
 465                      470                      475                      480  
 Ser Tyr Pro Lys Tyr Lys His His Cys Ala Lys Ile Leu Ser Met Phe  
                     485                      490                      495  
 Gly Ser Thr Tyr Ile Cys Glu Gln Leu Phe Ser Ile Met Lys Leu Ser  
                     500                      505                      510  
 Lys Thr Lys Tyr Cys Ser Gln Leu Lys Asp Ser Gln Trp Asp Ser Val  
 515                      520                      525  
 Leu His Ile Ala Thr  
 530

&lt;210&gt; 5039

&lt;211&gt; 3059

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5039

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 120  
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 180  
 ctgtttctca agctggtgct gaaactgccc tggacccagg tgggattctc cctgtgtgtc  
 240  
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 420  
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1980  
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2100

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<210> 5040

<211> 616

<212> PRT

<213> Homo sapiens

<400> 5040

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Val	Leu	Lys	Leu	Pro	Trp	Thr	Gln	Val	Gly	Phe	Ser	Leu	Leu	Phe	Leu
			20					25					30		
Tyr	Leu	Gly	Ser	Gly	Gly	Trp	Arg	Phe	Ile	Arg	Val	Phe	Ile	Lys	Thr
		35					40					45			
Ile	Arg	Arg	Asp	Ile	Phe	Gly	Gly	Leu	Val	Leu	Leu	Lys	Val	Lys	Ala
	50					55				60					
Lys	Val	Arg	Gln	Cys	Leu	Gln	Glu	Arg	Arg	Thr	Val	Pro	Ile	Leu	Phe
65					70					75				80	
Ala	Ser	Thr	Val	Arg	Arg	His	Pro	Asp	Lys	Thr	Ala	Leu	Ile	Phe	Glu
			85						90					95	
Gly	Thr	Asp	Thr	His	Trp	Thr	Phe	Arg	Gln	Leu	Asp	Glu	Tyr	Ser	Ser
			100					105					110		
Ser	Val	Ala	Asn	Phe	Leu	Gln	Ala	Arg	Gly	Leu	Ala	Ser	Gly	Asp	Val

115	120	125
Ala Ala Ile Phe Met Glu Asn Arg Asn Glu Phe Val Gly Leu Trp Leu		
130	135	140
Gly Met Ala Lys Leu Gly Val Glu Ala Ala Leu Ile Asn Thr Asn Leu		
145	150	155
Arg Arg Asp Ala Leu Leu His Cys Leu Thr Thr Ser Arg Ala Arg Ala		160
165	170	175
Leu Val Phe Gly Ser Glu Met Ala Ser Ala Ile Cys Glu Val His Ala		
180	185	190
Ser Pro Asp Pro Ser Leu Ser Leu Phe Cys Ser Gly Ser Trp Glu Pro		
195	200	205
Gly Ala Val Pro Pro Ser Thr Glu His Leu Asp Pro Leu Leu Lys Asp		
210	215	220
Ala Pro Lys His Leu Pro Ser Cys Pro Asp Lys Gly Phe Thr Asp Lys		
225	230	235
Leu Phe Tyr Ile Tyr Thr Ser Gly Thr Thr Gly Leu Pro Lys Ala Ala		240
245	250	255
Ile Val Val His Ser Arg Tyr Tyr Arg Met Ala Ala Leu Val Tyr Tyr		
260	265	270
Gly Phe Arg Met Arg Pro Asn Asp Ile Val Tyr Asp Cys Leu Pro Leu		
275	280	285
Tyr His Ser Ala Gly Asn Ile Val Gly Ile Gly Gln Cys Leu Leu His		
290	295	300
Gly Met Thr Val Val Ile Arg Lys Lys Phe Ser Ala Ser Arg Phe Trp		
305	310	315
Asp Asp Cys Ile Lys Tyr Asn Cys Thr Ile Val Gln Tyr Ile Gly Glu		
325	330	335
Leu Cys Arg Tyr Leu Leu Asn Gln Pro Pro Arg Glu Ala Glu Asn Gln		
340	345	350
His Gln Val Arg Met Ala Leu Gly Asn Ala Ser Gly Ser Pro Ser Gly		
355	360	365
Pro Thr Phe Pro Ala Ala Ser Thr Tyr Pro Arg Trp Leu Ser Ser Thr		
370	375	380
Gly Pro Glu Cys Asn Cys Ser Leu Gly Asn Phe Asp Ser Gln Val Gly		
385	390	395
Ala Cys Gly Phe Asn Ser Arg Ile Leu Ser Phe Val Tyr Pro Ile Arg		
405	410	415
Leu Val Arg Val Asn Glu Asp Thr Met Glu Leu Ile Arg Gly Pro Asp		
420	425	430
Gly Val Cys Ile Pro Cys Gln Pro Gly Glu Pro Gly Gln Leu Val Gly		
435	440	445
Arg Ile Ile Gln Lys Asp Pro Leu Arg Arg Phe Asp Gly Tyr Leu Asn		
450	455	460
Gln Gly Ala Asn Asn Lys Lys Ile Ala Lys Asp Val Phe Lys Lys Gly		
465	470	475
Asp Gln Ala Tyr Leu Thr Gly Asp Val Leu Val Met Asp Glu Leu Gly		
485	490	495
Tyr Leu Tyr Phe Arg Asp Arg Thr Gly Asp Thr Phe Arg Trp Lys Gly		
500	505	510
Glu Asn Val Ser Thr Thr Glu Val Glu Gly Thr Leu Ser Arg Leu Leu		
515	520	525
Asp Met Ala Asp Val Ala Val Tyr Gly Val Glu Val Pro Gly Thr Glu		
530	535	540
Gly Arg Ala Gly Met Ala Ala Val Ala Ser Pro Thr Gly Asn Cys Asp		

545                      550                      555                      560  
 Leu Glu Arg Phe Ala Gln Val Leu Glu Lys Glu Leu Pro Leu Tyr Ala  
                                  565                      570                      575  
 Arg Pro Ile Phe Leu Arg Leu Leu Pro Glu Leu His Lys Thr Gly Thr  
                                  580                      585                      590  
 Tyr Lys Phe Gln Lys Thr Glu Leu Arg Lys Glu Ala Phe Asp Pro Ala  
                                  595                      600                      605  
 Ile Val Lys Thr Arg Cys Ser Ile  
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<210> 5041

<211> 2461

<212> DNA

<213> Homo sapiens

<400> 5041

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 180  
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 420  
 cgccggcctg aacagagggt tctgcggttg tcagcccgcg aggcctcgga agaggagctg  
 480  
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 540  
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 600  
 cactgcgcgc ggctggccgc aggggctgga ctgcagctgg tggacgtgt gctcactgga  
 660  
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 720  
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 780  
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2460  
c  
2461

&lt;210&gt; 5042

&lt;211&gt; 686

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5042

Arg Gly Arg Leu Gly Thr Gln Gly Asp His Gly Ala Ala Met Gly Thr



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Ala Leu Val Tyr His Glu Asp Met Thr Ala Thr Arg Leu Leu Trp Asp			
20	25	30	
Asp Pro Glu Cys Glu Ile Glu Arg Pro Glu Arg Leu Thr Ala Ala Leu			
35	40	45	
Asp Arg Leu Arg Gln Arg Gly Leu Glu Gln Arg Cys Leu Arg Leu Ser			
50	55	60	
Ala Arg Glu Ala Ser Glu Glu Glu Leu Gly Leu Val His Ser Pro Glu			
65	70	75	80
Tyr Val Ser Leu Val Arg Glu Thr Gln Val Leu Gly Lys Glu Glu Leu			
85	90	95	
Gln Ala Leu Ser Gly Gln Phe Asp Ala Ile Tyr Phe His Pro Ser Thr			
100	105	110	
Phe His Cys Ala Arg Leu Ala Ala Gly Ala Gly Leu Gln Leu Val Asp			
115	120	125	
Ala Val Leu Thr Gly Ala Val Gln Asn Gly Leu Ala Leu Val Arg Pro			
130	135	140	
Pro Gly His His Gly Gln Arg Ala Ala Ala Asn Gly Phe Cys Val Phe			
145	150	155	160
Asn Asn Val Ala Ile Ala Ala Ala His Ala Lys Gln Lys His Gly Leu			
165	170	175	
His Arg Ile Leu Val Val Asp Trp Asp Val His His Gly Gln Gly Ile			
180	185	190	
Gln Tyr Leu Phe Glu Asp Asp Pro Ser Val Leu Tyr Phe Ser Trp His			
195	200	205	
Arg Tyr Glu His Gly Arg Phe Trp Pro Phe Leu Arg Glu Ser Asp Ala			
210	215	220	
Asp Ala Val Gly Arg Gly Gln Gly Leu Gly Phe Thr Val Asn Leu Pro			
225	230	235	240
Trp Asn Gln Val Gly Met Gly Asn Ala Asp Tyr Val Ala Ala Phe Leu			
245	250	255	
His Leu Leu Leu Pro Leu Ala Phe Glu Phe Asp Pro Glu Leu Val Leu			
260	265	270	
Val Ser Ala Gly Phe Asp Ser Ala Ile Gly Asp Pro Glu Gly Gln Met			
275	280	285	
Gln Ala Thr Pro Glu Cys Phe Ala His Leu Thr Gln Leu Leu Gln Val			
290	295	300	
Leu Ala Gly Gly Arg Val Cys Ala Val Leu Glu Gly Gly Tyr His Leu			
305	310	315	320
Glu Ser Leu Ala Glu Ser Val Cys Met Thr Val Gln Thr Leu Leu Gly			
325	330	335	
Asp Pro Ala Pro Pro Leu Ser Gly Pro Met Ala Pro Cys Gln Arg Cys			
340	345	350	
Glu Gly Ser Ala Leu Glu Ser Ile Gln Ser Ala Arg Ala Ala Gln Ala			
355	360	365	
Pro His Trp Lys Ser Leu Gln Gln Gln Asp Val Thr Ala Val Pro Met			
370	375	380	
Ser Pro Ser Ser His Ser Pro Glu Gly Arg Pro Pro Pro Leu Leu Pro			
385	390	395	400
Gly Gly Pro Val Cys Lys Ala Ala Ala Ser Ala Pro Ser Ser Leu Leu			
405	410	415	
Asp Gln Pro Cys Leu Cys Pro Ala Pro Ser Val Arg Thr Ala Val Ala			
420	425	430	
Leu Thr Thr Pro Asp Ile Thr Leu Val Leu Pro Pro Asp Val Ile Gln			

435 440 445  
 Gln Glu Ala Ser Ala Leu Arg Glu Glu Thr Glu Ala Trp Ala Arg Pro  
 450 455 460  
 His Glu Ser Leu Ala Arg Glu Glu Ala Leu Thr Ala Leu Gly Lys Leu  
 465 470 475 480  
 Leu Tyr Leu Leu Asp Gly Met Leu Asp Gly Gln Val Asn Ser Gly Ile  
 485 490 495  
 Ala Ala Thr Pro Ala Ser Ala Ala Ala Thr Leu Asp Val Ala Val  
 500 505 510  
 Arg Arg Gly Leu Ser His Gly Ala Gln Arg Leu Leu Cys Val Ala Leu  
 515 520 525  
 Gly Gln Leu Asp Arg Pro Pro Asp Leu Ala His Asp Gly Arg Ser Leu  
 530 535 540  
 Trp Leu Asn Ile Arg Gly Lys Glu Ala Ala Ala Leu Ser Met Phe His  
 545 550 555 560  
 Val Ser Thr Pro Leu Pro Val Met Thr Gly Gly Phe Leu Ser Cys Ile  
 565 570 575  
 Leu Gly Leu Val Leu Pro Leu Ala Tyr Gly Phe Gln Pro Asp Leu Val  
 580 585 590  
 Leu Val Ala Leu Gly Pro Gly His Gly Leu Gln Gly Pro His Ala Ala  
 595 600 605  
 Leu Leu Ala Ala Met Leu Arg Gly Leu Ala Gly Gly Arg Val Leu Ala  
 610 615 620  
 Leu Leu Glu Glu Asn Ser Thr Pro Gln Leu Ala Gly Ile Leu Ala Arg  
 625 630 635 640  
 Val Leu Asn Gly Glu Ala Pro Pro Ser Leu Gly Pro Ser Ser Val Ala  
 645 650 655  
 Ser Pro Glu Asp Val Gln Ala Leu Met Tyr Leu Arg Gly Gln Leu Glu  
 660 665 670  
 Pro Gln Trp Lys Met Leu Gln Cys His Pro His Leu Val Ala  
 675 680 685

&lt;210&gt; 5043

&lt;211&gt; 1824

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5043

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 120  
 aagacagtgt atagcctgca gccccctct gcgctgagcg gcggccagcc ggcagacaca  
 180  
 caaactcggg ccacttctaa gagtctctta cctgttaggt ccaaagaagt cgatgtttcc  
 240  
 aaacagcttc attcaggagg tccagagaat gatgttacaa aaatcaccaa actgagacga  
 300  
 gagaatgggc aaatgaaagc tactgacact gccaccagaa ggaatgtcag aaaaggctac  
 360  
 aaaccactga gtaagcaaaa atcagaggaa gagtcaagg acaagaacca gctgttagaa  
 420  
 gccgtcaaca agcagttgca ccagaagttg actgaaactc agggagagct gaaggacctg  
 480

accagaagg tagagctgct ggagaagttt cgggacaact gtttggcaat tttggagagc  
540  
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&lt;210&gt; 5044

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5044

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      50           55           60
Thr Ser Lys Ser Leu Leu Pro Val Arg Ser Lys Glu Val Asp Val Ser
      65           70           75           80
Lys Gln Leu His Ser Gly Gly Pro Glu Asn Asp Val Thr Lys Ile Thr
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Lys Leu Arg Arg Glu Asn Gly Gln Met Lys Ala Thr Asp Thr Ala Thr
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Ile Leu Glu Ser Lys Gly Leu Asp Pro Ala Leu Gly Ser Glu Thr Leu
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 <213> Homo sapiens

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<210> 5046  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

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 Ser Leu Arg Leu Thr Ala Pro Ser Leu Trp Gly Gly Ser Val Ala Arg  
 35 40 45  
 Asp Met Val Ala Cys Cys Leu Phe Ser Cys Ser Ser Lys His Tyr Pro  
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 <213> Homo sapiens

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&lt;210&gt; 5048

&lt;211&gt; 429

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5048

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Pro	Ala	Tyr	Ala	Tyr	Val	Leu	Thr	Val	Asn	Glu	Arg	Gly	Asn	His	Cys
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Lys	Gln	Ala	Phe	Tyr	Cys	Asn	Val	Glu	Cys	Gln	Lys	Glu	Asp	Trp	Pro
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<211> 2422
<212> DNA
<213> Homo sapiens
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<211> 619

<212> PRT

<213> Homo sapiens

<400> 5050

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Gln	His	Val	Cys	Glu	Thr	Ile	Ile	Arg	Ile	Phe	Lys	Arg	His	Gly	Ala
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Pro	Arg	Lys	Leu	Asp	Arg	Phe	His	Pro	Lys	Glu	Leu	Leu	Glu	Cys	Ala
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Phe	Asp	Ile	Val	Thr	Ser	Thr	Thr	Asn	Ser	Phe	Leu	Pro	Thr	Ala	Glu
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610

615

&lt;210&gt; 5051

&lt;211&gt; 4125

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5051

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&lt;210&gt; 5052

&lt;211&gt; 433

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5052

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 Arg Leu Ile Ser Glu Ile Glu Tyr Arg Leu Glu Arg Ser Pro Val Asp  
 20 25 30  
 Glu Ser Gly Asp Glu Phe Thr Tyr Gly Asp Val Pro Val Glu Asn Gly  
 35 40 45  
 Met Ala Pro Phe Phe Glu Met Lys Leu Lys His Tyr Lys Ile Phe Glu  
 50 55 60  
 Gly Met Pro Val Thr Phe Thr Cys Arg Val Ala Gly Asn Pro Lys Pro

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Lys Ile Tyr Trp Phe Lys Asp Gly Lys Gln Ile Ser Pro Lys Ser Asp
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His Tyr Thr Ile Gln Arg Asp Leu Asp Gly Thr Cys Ser Leu His Thr
      100          105          110
Thr Ala Ser Thr Leu Asp Asp Asp Gly Asn Tyr Thr Ile Met Ala Ala
      115          120          125
Asn Pro Gln Gly Arg Ile Ser Cys Thr Gly Arg Leu Met Val Gln Ala
      130          135          140
Val Asn Gln Arg Gly Arg Ser Pro Arg Ser Pro Ser Gly His Pro His
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Val Arg Arg Pro Arg Ser Arg Ser Arg Asp Ser Gly Asp Glu Asn Glu
      165          170          175
Pro Ile Gln Glu Arg Phe Phe Arg Pro His Phe Leu Gln Ala Pro Gly
      180          185          190
Asp Leu Thr Val Gln Glu Gly Lys Leu Cys Arg Met Asp Cys Lys Val
      195          200          205
Ser Gly Leu Pro Thr Pro Asp Leu Ser Trp Gln Leu Asp Gly Lys Pro
      210          215          220
Val Arg Pro Asp Ser Ala His Lys Met Leu Val Arg Glu Asn Gly Val
      225          230          235          240
His Ser Leu Ile Ile Glu Pro Val Thr Ser Arg Asp Ala Gly Ile Tyr
      245          250          255
Thr Cys Ile Ala Thr Asn Arg Ala Gly Gln Asn Ser Phe Ser Leu Glu
      260          265          270
Leu Val Val Ala Ala Lys Glu Ala His Lys Pro Pro Val Phe Ile Glu
      275          280          285
Lys Leu Gln Asn Thr Gly Val Ala Asp Gly Tyr Pro Val Arg Leu Glu
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Cys Arg Val Leu Gly Val Pro Pro Gln Ile Phe Trp Lys Lys Glu
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Asn Glu Ser Leu Thr His Ser Thr Asp Arg Val Ser Met His Gln Asp
      325          330          335
Asn His Gly Tyr Ile Cys Leu Leu Ile Gln Gly Ala Thr Lys Glu Asp
      340          345          350
Ala Gly Trp Tyr Thr Val Ser Ala Lys Asn Glu Ala Gly Ile Val Ser
      355          360          365
Cys Thr Ala Arg Leu Asp Val Tyr Thr Gln Trp His Gln Gln Ser Gln
      370          375          380
Ser Thr Lys Pro Lys Lys Val Arg Pro Ser Ala Ser Arg Tyr Ala Ala
      385          390          395          400
Leu Ser Asp Gln Gly Leu Asp Ile Lys Ala Ala Phe Gln Pro Glu Ala
      405          410          415
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Leu

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&lt;210&gt; 5053

&lt;211&gt; 781

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5053

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<210> 5054

**<211> 156**

<212> PRT

<213> Homo sapiens

<400> 5054

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			20					25					30		
Leu	Ala	Leu	Ala	Ser	Val	Pro	Cys	Ala	Gln	Gly	Ala	Cys	Pro	Ala	Ser
		35					40					45			
Ala	Asp	Leu	Lys	His	Ser	Asp	Gly	Thr	Arg	Thr	Cys	Ala	Lys	Leu	Tyr
	50					55					60				
Asp	Lys	Ser	Asp	Pro	Tyr	Tyr	Glu	Asn	Cys	Cys	Gly	Gly	Ala	Glu	Leu
65					70					75					80
Ser	Leu	Glu	Ser	Gly	Ala	Asp	Leu	Pro	Tyr	Leu	Pro	Ser	Asn	Trp	Ala
				85					90					95	
Asn	Thr	Ala	Ser	Ser	Leu	Val	Val	Ala	Pro	Arg	Cys	Glu	Leu	Thr	Val
			100					105					110		
Trp	Ser	Arg	Gln	Gly	Lys	Ala	Gly	Lys	Thr	His	Lys	Phe	Ser	Ala	Gly
		115					120					125			
Thr	Tyr	Pro	Arg	Leu	Glu	Glu	Tyr	Arg	Arg	Gly	Ile	Leu	Gly	Asp	Trp
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Ser	Asn	Ala	Ile	Ser	Ala	Leu	Tyr	Cys	Arg	Cys	Ser				



145

150

155

&lt;210&gt; 5055

&lt;211&gt; 2520

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5055

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&lt;210&gt; 5056

&lt;211&gt; 672

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5056

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Ser	Leu	Leu	Asn	Ser	Leu	Asn	Glu	Gln	Arg	Gly	His	Gly	Leu	Phe	Cys
			20					25					30		
Asp	Val	Thr	Val	Ile	Val	Glu	Asp	Arg	Lys	Phe	Arg	Ala	His	Lys	Asn
			35				40					45			
Ile	Leu	Ser	Ala	Ser	Ser	Thr	Tyr	Phe	His	Gln	Leu	Phe	Ser	Val	Ala
			50			55				60					
Gly	Gln	Val	Val	Glu	Leu	Ser	Phe	Ile	Arg	Ala	Glu	Ile	Phe	Ala	Glu

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      85          90          95
Leu Leu Asp Glu Leu Ile Lys Ser Gly Gln Leu Leu Gly Val Lys Phe
      100        105        110
Ile Ala Glu Leu Gly Val Pro Leu Ser Gln Val Lys Ser Ile Ser Gly
      115        120        125
Thr Ala Gln Asp Gly Asn Thr Glu Pro Leu Pro Pro Asp Ser Gly Asp
      130        135        140
Lys Asn Leu Val Ile Gln Lys Ser Lys Asp Glu Ala Gln Asp Asn Gly
145          150          155          160
Ala Thr Ile Met Pro Ile Ile Thr Glu Ser Phe Ser Leu Ser Ala Glu
      165        170        175
Asp Tyr Glu Met Lys Lys Ile Ile Val Thr Asp Ser Asp Asp Asp Asp
      180        185        190
Asp Asp Val Ile Phe Cys Ser Glu Ile Leu Pro Thr Lys Glu Thr Leu
      195        200        205
Pro Ser Asn Asn Thr Val Ala Gln Val Gln Ser Asn Pro Gly Pro Val
      210        215        220
Ala Ile Ser Asp Val Ala Pro Ser Ala Ser Asn Asn Ser Pro Pro Leu
225          230          235          240
Thr Asn Ile Thr Pro Thr Gln Lys Leu Pro Thr Pro Val Asn Gln Ala
      245        250        255
Thr Leu Ser Gln Thr Gln Gly Ser Glu Lys Leu Leu Val Ser Ser Ala
      260        265        270
Pro Thr His Leu Thr Pro Asn Ile Ile Leu Leu Asn Gln Thr Pro Leu
      275        280        285
Ser Thr Pro Pro Asn Val Ser Ser Ser Leu Pro Asn His Met Pro Ser
      290        295        300
Ser Ile Asn Leu Leu Val Gln Asn Gln Gln Thr Pro Asn Ser Ala Ile
305          310          315          320
Leu Thr Gly Asn Lys Ala Asn Glu Glu Glu Glu Glu Ile Ile Asp
      325        330        335
Asp Asp Asp Asp Thr Ile Ser Ser Ser Pro Asp Ser Ala Val Ser Asn
      340        345        350
Thr Ser Leu Val Pro Gln Ala Asp Thr Ser Gln Asn Thr Ser Phe Asp
      355        360        365
Gly Ser Leu Ile Gln Lys Met Gln Ile Pro Thr Leu Leu Gln Glu Pro
      370        375        380
Leu Ser Asn Ser Leu Lys Ile Ser Asp Ile Ile Thr Arg Asn Thr Asn
385          390          395          400
Asp Pro Gly Val Gly Ser Lys His Leu Met Glu Gly Gln Lys Ile Ile
      405        410        415
Thr Leu Asp Thr Ala Thr Glu Ile Glu Gly Leu Ser Thr Gly Cys Lys
      420        425        430
Val Tyr Ala Asn Ile Gly Glu Asp Thr Tyr Asp Ile Val Ile Pro Val
      435        440        445
Lys Asp Asp Pro Asp Glu Gly Glu Ala Arg Leu Glu Asn Glu Ile Pro
      450        455        460
Lys Thr Ser Gly Ser Glu Met Ala Asn Lys Arg Met Lys Val Lys His
465          470          475          480
Asp Asp His Tyr Glu Leu Ile Val Asp Gly Arg Val Tyr Tyr Ile Cys
      485        490        495
Ile Val Cys Lys Arg Ser Tyr Val Cys Leu Thr Ser Leu Arg Arg His

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<211> 673
<212> DNA
<213> Homo sapiens
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<210> 5058

<211> 122  
 <212> PRT  
 <213> Homo sapiens

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 Ser Cys Pro Lys Val Asn Ser Val Tyr Val Leu Val Arg Gln Lys Ala  
 35 40 45  
 Gly Gln Thr Pro Gln Glu Arg Val Glu Glu Val Leu Ser Gly Lys Leu  
 50 55 60  
 Phe Asp Arg Leu Arg Asp Glu Asn Pro Asp Phe Arg Glu Lys Ile Ile  
 65 70 75 80  
 Ala Ile Asn Ser Glu Leu Thr Gln Pro Lys Leu Ala Leu Ser Glu Glu  
 85 90 95  
 Asp Lys Glu Val Ile Ile Asp Ser Thr Asn Ile Ile Phe His Cys Ala  
 100 105 110  
 Ala Thr Val Arg Phe Asn Glu Asn Leu Arg  
 115 120

<210> 5059  
 <211> 480  
 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
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 Phe Ala Ser Trp Leu Ser Leu Asp Ile Met Thr Gly Gly Leu Ala Pro

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Leu Pro His Thr Leu Pro Ala Phe Leu Pro His Cys Leu Glu Asp Leu
      35      40      45
Leu Arg Ala Trp Val Leu Val Ile Gly Ser Ala Pro Arg Ala Gly Cys
      50      55      60
Arg Leu Ser Leu Glu Lys Asp Ser Gln Leu Val Ser Leu Cys Ile His
      65      70      75      80
Ala Leu Cys Pro Glu Arg Pro Ser Gln Ser Ala Arg Ala Val Ile Thr
      85      90      95
Arg Tyr His Ala Leu Gly Gly Leu Thr His Arg Glu Cys Leu Ser Val
      100      105      110
Leu Glu

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&lt;210&gt; 5061

&lt;211&gt; 2462

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5061

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&lt;210&gt; 5062

&lt;211&gt; 136

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5062

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Val Arg Arg Ser Pro Ser Ser Arg Phe Ser Phe Phe Pro Pro Gln Gln
      35           40           45
Arg Asn Trp Arg Lys Asp Ile Lys Leu Ser Ala Val Asp Leu Ser Ala
      50           55           60
Glu Ile Phe Pro Glu Ser Met Val Val Leu Asn Tyr Leu His Val Ser
      65           70           75           80
Ser Ile Phe Asn Ser Gly Val Gly Leu Phe Leu Ile Ser Ser Gln Lys
      85           90           95
Cys Ser Ala Leu Gly Glu Gly Thr Ser Pro Leu Ala Cys His Phe Pro
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<210> 5063

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5063

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<210> 5064

<211> 110

<212> PRT

<213> Homo sapiens



&lt;400&gt; 5064

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      20           25           30
Ala Arg Lys Tyr Trp Leu Thr Cys Phe Glu Glu Ala Leu Asp Gly Val
      35           40           45
Val Lys Arg Ala Val Ala Ser Gln Pro Asp Ser Val Asp Ala Ala Glu
      50           55           60
Arg Ala Glu Lys Phe Arg Gln Lys Tyr Trp Asn Lys Leu Gln Thr Leu
      65           70           75           80
Arg Gln Gln Pro Phe Ala Tyr Gly Thr Leu Thr Val Arg Ser Leu Leu
      85           90           95
Asp Thr Arg Glu His Cys Leu Asn Glu Phe Asn Phe Pro Asp
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&lt;210&gt; 5065

&lt;211&gt; 370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5065

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370

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&lt;210&gt; 5066

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5066

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Ile Glu Asp Ala Arg Glu Arg Met Arg Thr Leu Arg Lys Leu Ile Arg
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      20           25           30
Leu Lys Thr Ile Ala Asp His Ser Glu Lys Asn Lys Met Glu Pro Arg
      35           40           45
Asn Leu Ala Leu Val Phe Gly Pro Thr Leu Val Arg Thr Ser Glu Asp
      50           55           60
Asn Met Thr Asp Met Val Thr His Met Pro Asp Arg Tyr Lys Ile Val
      65           70           75           80
Glu Thr Leu Ile Gln His Ser Asp Trp Phe Phe Ser Asp Glu Glu Asp

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Lys	Gly	Glu	Arg	Ile	Leu	Pro	Pro	Val	Val	Gln	Ser
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 <211> 2023  
 <212> DNA  
 <213> Homo sapiens

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 2023

&lt;210&gt; 5068

&lt;211&gt; 179

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5068

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 20 25 30  
 Ala Leu Gln Asn Glu Arg Thr Glu Arg Ile Arg Ser Leu Leu Glu Arg  
 35 40 45  
 Gln Ala Arg Glu Ile Glu Ala Phe Asp Ser Glu Ser Met Arg Leu Gly  
 50 55 60  
 Phe Ser Asn Met Val Leu Ser Asn Leu Ser Pro Glu Ala Phe Ser His  
 65 70 75 80  
 Ser Tyr Pro Gly Ala Ser Gly Trp Ser His Asn Pro Thr Gly Gly Pro  
 85 90 95  
 Gly Pro His Trp Gly His Pro Met Gly Gly Pro Pro Gln Ala Trp Gly  
 100 105 110  
 His Pro Met Gln Gly Gly Pro Gln Pro Trp Gly His Pro Ser Gly Pro  
 115 120 125  
 Met Gln Gly Val Pro Arg Gly Ser Ser Met Gly Val Arg Asn Ser Pro  
 130 135 140  
 Gln Ala Leu Arg Arg Thr Ala Ser Gly Gly Arg Thr Glu Gln Gly Met  
 145 150 155 160  
 Ser Arg Ser Thr Ser Val Thr Ser Gln Ile Ser Asn Gly Ser His Met

Ser Tyr Thr

165

170

175

&lt;210&gt; 5069

&lt;211&gt; 3655

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5069

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<211> 255

<212> PRT

<213> Homo sapiens

<400> 5070

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<211> 2196
<212> DNA
<213> Homo sapiens
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&lt;210&gt; 5072

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5072

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 Ser Leu Gln Ser Ser Trp Asp Tyr Arg His Ala Gln Pro Cys Pro Ala  
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<211> 1712  
<212> DNA  
<213> Homo sapiens

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<210> 5074

<211> 240

<212> PRT

<213> Homo sapiens

<400> 5074

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Met	Asp	Lys	Glu	Thr	Phe	Glu	Phe	Lys	Phe	Gly	Lys	Glu	Leu	Thr	Phe	35	40	45	
Thr	Thr	Val	Leu	Ser	Asp	Gln	Gln	Val	Val	Glu	Leu	Ile	Pro	Gly	Gly	50	55	60	
Ala	Gly	Ile	Val	Val	Gly	Tyr	Gly	Asp	Arg	Ser	Arg	Phe	Ile	Gln	Leu	65	70	75	80
Val	Gln	Lys	Ala	Arg	Leu	Glu	Glu	Ser	Lys	Glu	Gln	Val	Ala	Ala	Met	85	90	95	
Gln	Ala	Gly	Leu	Leu	Lys	Val	Val	Pro	Gln	Ala	Val	Leu	Asp	Leu	Leu	100	105	110	
Thr	Trp	Gln	Glu	Leu	Glu	Lys	Lys	Val	Cys	Gly	Asp	Pro	Glu	Val	Thr	115	120	125	
Val	Asp	Ala	Leu	Arg	Lys	Leu	Thr	Arg	Phe	Glu	Asp	Phe	Glu	Pro	Ser	130	135	140	
Asp	Ser	Arg	Val	Gln	Tyr	Phe	Trp	Glu	Ala	Leu	Asn	Asn	Phe	Thr	Asn	145	150	155	160
Glu	Asp	Arg	Ser	Arg	Phe	Leu	Arg	Phe	Val	Thr	Gly	Arg	Ser	Arg	Leu	165	170	175	
Pro	Ala	Arg	Xaa	Ser	Thr	Ser	Thr	Gln	Thr	Ser	Trp	Ala	Thr	Arg	Pro	180	185	190	
Xaa	Asp	Ala	Leu	Pro	Glu	Ser	Ser	Thr	Cys	Ser	Ser	Thr	Leu	Phe	Leu	195	200	205	
Pro	His	Tyr	Ala	Ser	Ala	Lys	Val	Cys	Glu	Glu	Lys	Leu	Arg	Tyr	Ala	210	215	220	
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<210> 5075

<211> 444

<212> DNA

<213> Homo sapiens

<400> 5075

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<212> PRT

<213> Homo sapiens

<400> 5076

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			20				25				30				
Cys	Trp	Asp	Gly	Gly	Gly	Ser	Gly	Asn	Phe	Ser	Ser	Pro	Gly	Thr	Leu
		35					40					45			
Arg	Glu	Thr	Glu	Val	Ile	Thr	Ala	Val	Leu	Glu	Leu	Gly	Arg	Gly	Gly
		50				55					60				
Asp	Gln	Val	Thr	Ala	Asp	Gln	Lys	Ser	Leu	Asn	Ile	Asn	Ala	Met	Glu
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Arg	Glu	Leu	Ala	Leu	Ser	Leu	Arg	Val	Ala						
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<210> 5077

<211> 2352

<212> DNA

<213> Homo sapiens

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<210> 5078

<211> 558

<212> PRT

<213> Homo sapiens

<400> 5078

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Leu	Gln	Gln	Phe	Asp	Phe	Asn	Val	Asp	Lys	Ala	Val	Gln	Ala	Phe	Val
		35					40					45			
Asp	Gly	Ser	Ala	Ile	Gln	Val	Leu	Lys	Glu	Trp	Asn	Met	Thr	Gly	Lys
	50					55					60				
Lys	Lys	Asn	Asn	Lys	Arg	Lys	Arg	Ser	Lys	Ser	Lys	Gln	His	Gln	Gly
65					70					75				80	
Asn	Lys	Asp	Ala	Lys	Asp	Lys	Val	Glu	Arg	Pro	Glu	Ala	Gly	Pro	Leu
			85					90						95	
Gln	Pro	Gln	Pro	Pro	Gln	Ile	Gln	Asn	Gly	Pro	Met	Asn	Gly	Cys	Glu
			100					105					110		
Lys	Asp	Ser	Ser	Ser	Thr	Asp	Ser	Ala	Asn	Glu	Lys	Pro	Ala	Leu	Ile
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Pro	Arg	Glu	Lys	Lys	Ile	Ser	Ile	Leu	Glu	Glu	Pro	Ser	Lys	Ala	Leu
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	195						200					205			
Lys	Pro	Asp	Glu	Leu	Ala	Lys	Lys	Arg	Gly	Pro	Asn	Ile	Glu	Lys	Ser
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Val	Lys	Asp	Leu	Gln	Arg	Cys	Thr	Val	Ser	Leu	Thr	Arg	Tyr	Arg	Val
225					230					235				240	
Met	Ile	Lys	Glu	Glu	Val	Asp	Ser	Ser	Val	Lys	Lys	Ile	Lys	Ala	Ala
				245					250					255	
Phe	Ala	Glu	Leu	His	Asn	Cys	Ile	Ile	Asp	Lys	Glu	Val	Ser	Leu	Met

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 Phe Val Ser Glu Arg Lys Tyr Asp Glu Glu Leu Gly Lys Ala Ala Arg  
 325 330 335  
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 340 345 350  
 Glu Ile Thr His Pro Lys Asn Asn Tyr Ser Ser Arg Thr Pro Cys Ser  
 355 360 365  
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 405 410 415  
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 Gly Asn Ser Arg His Glu His Arg Arg Gln Pro His Asn Gly Phe Arg  
 465 470 475 480  
 Pro Lys Asn Lys Gly Gly Ala Lys Asn Gln Glu Ala Ser Leu Gly Met  
 485 490 495  
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 His Ala Ala Asp Thr Ser Glu Ala Arg Pro Phe Arg Gly Ser Val Gly  
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 Asp Ala Ala Val Leu Ser Val Pro Ala Val Thr Leu Val Ala  
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&lt;210&gt; 5079

&lt;211&gt; 1338

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5079

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<210> 5080

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5080

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Arg	Arg	Ala	Arg	Leu	Pro	Gln	Tyr	Lys	Arg	Pro	Pro	Gly	Arg	Val	Gly
		20					25					30			
Gly	Gly	Asp	Ser	Gly	Arg	Arg	Asn	Met	Ala	Val	Ala	Asp	Leu	Ala	Leu
		35				40					45				
Ile	Pro	Asp	Val	Asp	Ile	Asp	Ser	Asp	Gly	Val	Phe	Lys	Tyr	Val	Leu
	50					55				60					
Ile	Arg	Val	His	Ser	Ala	Pro	Arg	Ser	Gly	Ala	Pro	Ala	Ala	Glu	Ser
65				70					75					80	
Lys	Glu	Ile	Val	Arg	Gly	Tyr	Lys	Trp	Ala	Glu	Tyr	His	Ala	Asp	Ile

85 90 95  
 Tyr Asp Lys Val Ser Gly Asp Met Gln Lys Gln Gly Cys Asp Cys Glu  
 100 105 110  
 Cys Leu Gly Gly Gly Arg Ile Ser His Gln Ser Gln Asp Lys Lys Ile  
 115 120 125  
 His Val Tyr Gly Tyr Ser Met Val Ser Arg Ser Pro Val Pro Pro Cys  
 130 135 140  
 Arg Arg Pro Gln Tyr Gln Leu Arg Gly Pro Pro Glu Pro Ala Ala Leu  
 145 150 155 160  
 Thr Arg Gly Pro Ser  
 165

&lt;210&gt; 5081

&lt;211&gt; 561

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5081

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 120  
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 180  
 tctgcatctg ctgcgccctg cagggtcctg ggtgcccagc cagttctcat gccaccaag  
 240  
 ctgctgtgtg caggaagggtg tgtgggccag gacggggctg cacaggcctg gcaactgccct  
 300  
 ccaggacagg gtcactcagt gtgggatgct gtcagaatgc ctctcggggc ggggactcca  
 360  
 gtcaatgtac aaagacgtga agactcagcc acagaaggca gccacaggct catcttggca  
 420  
 gccaacaggg atgaattcta cagccgaccc tccaagttag ctgacttctg gggaacaac  
 480  
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 540  
 atcagcacac gtggcaagct g  
 561

&lt;210&gt; 5082

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5082

Met Pro Pro Lys Leu Leu Cys Ala Gly Arg Cys Val Gly Gln Asp Gly  
 1 5 10 15  
 Ala Ala Gln Ala Trp His Cys Pro Pro Gly Gln Gly His Ser Val Trp  
 20 25 30  
 Asp Ala Val Arg Met Pro Leu Gly Ala Gly Thr Pro Val Asn Val Gln  
 35 40 45  
 Arg Arg Glu Asp Ser Ala Thr Glu Gly Ser His Arg Leu Ile Leu Ala  
 50 55 60  
 Ala Asn Arg Asp Glu Phe Tyr Ser Arg Pro Ser Lys Leu Ala Asp Phe



65		70		75		80									
Trp	Gly	Asn	Asn	Asn	Glu	Ile	Leu	Ser	Gly	Leu	Asp	Met	Glu	Glu	Gly
			85					90						95	
Lys	Glu	Gly	Gly	Thr	Trp	Leu	Gly	Ile	Ser	Thr	Arg	Gly	Lys	Leu	
			100					105						110	

<210> 5083  
 <211> 1856  
 <212> DNA  
 <213> Homo sapiens

<400> 5083  
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 60  
 acagtgggtg gtgacgggac agagcgggtc gtgacagcct caagggcttc agcaccgcgc  
 120  
 ccatggcaga gccagaccga ctccagattca gactctgagg gaggagccgc tgggtggagaa  
 180  
 gcagacatgg acttcctgcg gaactttatc tcccagacgc tcagcctggg cagccagaag  
 240  
 gaggctctgc tggacgagct gaccttgaa ggggtggccc ggtacatgca gaggcaacgc  
 300  
 tgctgcagag tcatctgttt ggtgggagct ggaatctcca catccgcagg catccccgac  
 360  
 ttctgctctc catccaccgg cctctatgac aacctagaga agtaccatct tccctaccca  
 420  
 gaggccatct ttgagatcag ctatttcaag aaacatccgg aacccttctt cgccctcgcc  
 480  
 aaggaaactct atcctgggca gttcaagcca accatctgtc actacttcat gcgcctgctg  
 540  
 aaggacaagg ggctactcct gcgctgtac acgcagaaca tagataccct ggagcgaata  
 600  
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 660  
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 720  
 gaggtgacgc ccaagtgtga agactgtcag agcctggtga agcctgatat cgtctttttt  
 780  
 ggtgagagcc tcccagcgcg tttcttctcc tgtatgcagt cagacttctt gaaggtggac  
 840  
 ctctctctgg tcatgggtac ctcttgagc gtgcagccct ttgcctccct catcagcaag  
 900  
 gcacccctct ccacccctcg cctgctcatc aacaaggaga aagctggcca gtcggaccct  
 960  
 ttctctggga tgattatggg cctcggagga ggcattgact ttgactcaa gaaggcctac  
 1020  
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 1080  
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 1140  
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 gccaaaggac aggccaggac aacagagagg gagaaacccc agtgacagct gcactctcca  
 1260

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 1620  
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 1856

&lt;210&gt; 5084

&lt;211&gt; 396

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5084

Arg	Asp	Thr	Val	Val	Gly	Asp	Gly	Thr	Glu	Arg	Ser	Val	Thr	Ala	Ser
1				5				10						15	
Arg	Ala	Ser	Ala	Pro	Arg	Pro	Trp	Gln	Ser	Gln	Thr	Asp	Ser	Asp	Ser
		20					25					30			
Asp	Ser	Glu	Gly	Gly	Ala	Ala	Gly	Gly	Glu	Ala	Asp	Met	Asp	Phe	Leu
		35				40					45				
Arg	Asn	Leu	Phe	Ser	Gln	Thr	Leu	Ser	Leu	Gly	Ser	Gln	Lys	Glu	Arg
	50				55					60					
Leu	Leu	Asp	Glu	Leu	Thr	Leu	Glu	Gly	Val	Ala	Arg	Tyr	Met	Gln	Ser
65				70					75					80	
Glu	Arg	Cys	Arg	Arg	Val	Ile	Cys	Leu	Val	Gly	Ala	Gly	Ile	Ser	Thr
		85						90					95		
Ser	Ala	Gly	Ile	Pro	Asp	Phe	Arg	Ser	Pro	Ser	Thr	Gly	Leu	Tyr	Asp
	100						105					110			
Asn	Leu	Glu	Lys	Tyr	His	Leu	Pro	Tyr	Pro	Glu	Ala	Ile	Phe	Glu	Ile
	115					120					125				
Ser	Tyr	Phe	Lys	Lys	His	Pro	Glu	Pro	Phe	Phe	Ala	Leu	Ala	Lys	Glu
	130				135					140					
Leu	Tyr	Pro	Gly	Gln	Phe	Lys	Pro	Thr	Ile	Cys	His	Tyr	Phe	Met	Arg
145				150					155					160	
Leu	Leu	Lys	Asp	Lys	Gly	Leu	Leu	Leu	Arg	Cys	Tyr	Thr	Gln	Asn	Ile
		165						170					175		
Asp	Thr	Leu	Glu	Arg	Ile	Ala	Gly	Leu	Glu	Gln	Glu	Asp	Leu	Val	Glu
	180						185					190			
Ala	His	Gly	Thr	Phe	Tyr	Thr	Ser	His	Cys	Val	Ser	Ala	Ser	Cys	Arg
	195					200					205				
His	Glu	Tyr	Pro	Leu	Ser	Trp	Met	Lys	Glu	Lys	Ile	Phe	Ser	Glu	Val

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      210              215              220
Thr Pro Lys Cys Glu Asp Cys Gln Ser Leu Val Lys Pro Asp Ile Val
225              230              235              240
Phe Phe Gly Glu Ser Leu Pro Ala Arg Phe Phe Ser Cys Met Gln Ser
      245              250              255
Asp Phe Leu Lys Val Asp Leu Leu Leu Val Met Gly Thr Ser Leu Gln
      260              265              270
Val Gln Pro Phe Ala Ser Leu Ile Ser Lys Ala Pro Leu Ser Thr Pro
      275              280              285
Arg Leu Leu Ile Asn Lys Glu Lys Ala Gly Gln Ser Asp Pro Phe Leu
      290              295              300
Gly Met Ile Met Gly Leu Gly Gly Gly Met Asp Phe Asp Ser Lys Lys
305              310              315              320
Ala Tyr Arg Asp Val Ala Trp Leu Gly Glu Cys Asp Gln Gly Cys Leu
      325              330              335
Ala Leu Ala Glu Leu Leu Gly Trp Lys Lys Glu Leu Glu Asp Leu Val
      340              345              350
Arg Arg Glu His Ala Ser Ile Asp Ala Gln Ser Gly Ala Gly Val Pro
      355              360              365
Asn Pro Ser Thr Ser Ala Ser Pro Lys Lys Ser Pro Pro Pro Ala Lys
      370              375              380
Asp Glu Ala Arg Thr Thr Glu Arg Glu Lys Pro Gln
385              390              395

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&lt;210&gt; 5085

&lt;211&gt; 2964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5085

```

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60
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120
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180
accgtgccat gggtgacagt gatgacgagt acgatcgaag gcgcagggac aagttcagaa
240
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300
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360
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420
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tccttgatg actcgggtga tgagacggag gccgtcaagc gctataatga ctacaagctg
720

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2340

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 2940  
 aaaaaaaaaa aaaaaaagtc gacg  
 2964

&lt;210&gt; 5086

&lt;211&gt; 792

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5086

Met	Ser	Thr	Ala	Leu	Thr	His	Thr	Thr	Val	Ala	Met	Arg	Cys	Pro	Met
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Leu	Xaa	Gly	Gly	Gly	Gly	Pro	Thr	Tyr	Gly	Pro	Pro	Gln	Pro	Trp	Gly
		20						25					30		
His	Pro	Asp	Val	His	Ile	Met	Gln	His	His	Val	Leu	Pro	Ile	Gln	Ala
		35					40				45				
Arg	Leu	Gly	Ser	Ile	Ala	Glu	Ile	Asp	Leu	Gly	Val	Pro	Pro	Pro	Val
	50					55				60					
Met	Lys	Thr	Phe	Lys	Glu	Phe	Leu	Leu	Ser	Leu	Asp	Asp	Ser	Val	Asp
65					70					75				80	
Glu	Thr	Glu	Ala	Val	Lys	Arg	Tyr	Asn	Asp	Tyr	Lys	Leu	Asp	Phe	Arg
			85						90					95	
Arg	Gln	Gln	Met	Gln	Asp	Phe	Phe	Leu	Ala	His	Lys	Asp	Glu	Glu	Trp
	100							105					110		
Phe	Arg	Ser	Lys	Tyr	His	Pro	Asp	Glu	Val	Gly	Lys	Arg	Arg	Gln	Glu
	115						120					125			
Ala	Arg	Gly	Ala	Leu	Gln	Asn	Arg	Leu	Arg	Val	Phe	Leu	Ser	Leu	Met
	130					135					140				
Glu	Thr	Gly	Trp	Phe	Asp	Asn	Leu	Leu	Leu	Asp	Ile	Asp	Lys	Ala	Asp
145					150					155				160	
Ala	Ile	Val	Lys	Met	Leu	Asp	Ala	Ala	Val	Ile	Lys	Met	Glu	Gly	Gly
			165						170					175	
Thr	Glu	Asn	Asp	Leu	Arg	Ile	Leu	Glu	Gln	Glu	Glu	Glu	Glu	Glu	Gln
		180						185					190		
Ala	Gly	Lys	Pro	Gly	Glu	Pro	Ser	Lys	Lys	Glu	Glu	Gly	Arg	Ala	Gly

195	200	205
Ala Gly Leu Gly Asp Gly Glu Arg Lys Thr Asn Asp Lys Asp Glu Lys		
210	215	220
Lys Glu Asp Gly Lys Gln Ala Glu Asn Asp Ser Ser Asn Asp Asp Lys		
225	230	235
Thr Lys Lys Ser Glu Gly Asp Gly Asp Lys Glu Glu Lys Lys Glu Asp		240
245	250	255
Ser Glu Lys Glu Ala Lys Lys Ser Ser Lys Lys Arg Asn Arg Lys His		
260	265	270
Ser Gly Asp Asp Ser Phe Asp Glu Gly Ser Val Ser Glu Ser Glu Ser		
275	280	285
Glu Ser Glu Ser Gly Gln Ala Glu Glu Glu Lys Glu Glu Ala Glu Glu		
290	295	300
Ala Leu Lys Glu Lys Glu Lys Pro Lys Glu Glu Glu Trp Glu Lys Pro		
305	310	315
Lys Asp Ala Ala Gly Leu Glu Cys Lys Pro Arg Pro Leu His Lys Thr		320
325	330	335
Cys Ser Leu Phe Met Arg Asn Ile Ala Pro Asn Ile Ser Arg Ala Glu		
340	345	350
Ile Ile Ser Leu Cys Lys Arg Tyr Pro Gly Phe Met Arg Val Ala Leu		
355	360	365
Ser Glu Pro Gln Pro Glu Arg Arg Phe Phe Arg Arg Gly Trp Val Thr		
370	375	380
Phe Asp Arg Ser Val Asn Ile Lys Glu Ile Cys Trp Asn Leu Gln Asn		
385	390	395
Ile Arg Leu Arg Glu Cys Glu Leu Ser Pro Gly Val Asn Arg Asp Leu		400
405	410	415
Thr Arg Arg Val Arg Asn Ile Asn Gly Ile Thr Gln His Lys Gln Ile		
420	425	430
Val Arg Asn Asp Ile Lys Leu Ala Ala Lys Leu Ile His Thr Leu Asp		
435	440	445
Asp Arg Thr Gln Leu Trp Ala Ser Glu Pro Gly Thr Pro Pro Leu Pro		
450	455	460
Thr Ser Leu Pro Ser Gln Asn Pro Ile Leu Lys Asn Ile Thr Asp Tyr		
465	470	475
Leu Ile Glu Glu Val Ser Ala Glu Glu Glu Leu Leu Gly Ser Ser		480
485	490	495
Gly Gly Ala Pro Pro Glu Glu Pro Pro Lys Glu Gly Asn Pro Ala Glu		
500	505	510
Ile Asn Val Glu Arg Asp Glu Lys Leu Ile Lys Val Leu Asp Lys Leu		
515	520	525
Leu Leu Tyr Leu Arg Ile Val His Ser Leu Asp Tyr Tyr Asn Thr Cys		
530	535	540
Glu Tyr Pro Asn Glu Asp Glu Met Pro Asn Arg Cys Gly Ile Ile His		
545	550	555
Val Arg Gly Pro Met Pro Pro Asn Arg Ile Ser His Gly Glu Val Leu		560
565	570	575
Glu Trp Gln Lys Thr Phe Glu Glu Lys Leu Thr Pro Leu Leu Ser Val		
580	585	590
Arg Glu Ser Leu Ser Glu Glu Glu Ala Gln Lys Met Gly Arg Lys Asp		
595	600	605
Pro Glu Gln Glu Val Glu Lys Phe Val Thr Ser Asn Thr Gln Glu Leu		
610	615	620
Gly Lys Asp Lys Trp Leu Cys Pro Leu Ser Gly Lys Lys Phe Lys Gly		

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625          630          635          640
Pro Glu Phe Val Arg Lys His Ile Phe Asn Lys His Ala Glu Lys Ile
          645          650          655
Glu Glu Val Lys Lys Glu Val Ala Phe Phe Asn Asn Phe Leu Thr Asp
          660          665          670
Ala Lys Arg Pro Ala Leu Pro Glu Ile Lys Pro Ala Gln Pro Pro Gly
          675          680          685
Pro Ala Gln Ile Leu Pro Pro Gly Leu Thr Pro Gly Leu Pro Tyr Pro
          690          695          700
His Gln Thr Pro Gln Gly Leu Met Pro Tyr Gly Gln Pro Arg Pro Pro
705          710          715          720
Ile Leu Gly Tyr Gly Ala Gly Ala Val Arg Pro Ala Val Pro Thr Gly
          725          730          735
Gly Pro Pro Tyr Pro His Ala Pro Tyr Gly Ala Gly Arg Gly Asn Tyr
          740          745          750
Asp Ala Phe Arg Gly Gln Gly Gly Tyr Pro Gly Lys Pro Arg Asn Arg
          755          760          765
Met Val Arg Gly Asp Pro Arg Ala Ile Val Glu Tyr Arg Asp Leu Asp
          770          775          780
Ala Pro Asp Asp Val Asp Phe Phe
785          790

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&lt;210&gt; 5087

&lt;211&gt; 4949

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5087

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780

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840  
aattaaacgt gttgccacac ctgccggctt ctgaactctg tccttggctt cctgcaccct  
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960  
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1020  
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 4949

&lt;210&gt; 5088

&lt;211&gt; 465

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5088

Gly	Ser	Gly	Thr	Thr	Arg	Pro	Leu	Glu	Val	His	Pro	Gly	Pro	Pro	Arg
1				5					10					15	
Leu	Val	Gly	Gly	Ala	Gln	Gly	Glu	Gly	Gly	Trp	Ala	Ala	Gly	Asp	Lys
			20					25					30		
Gln	Gly	Arg	Ser	Cys	Pro	Gly	Thr	Pro	Asp	Ile	Ala	Asp	Val	Ala	Glu
		35					40					45			
Leu	Arg	Val	Glu	Leu	Thr	His	Gly	Ala	Glu	Thr	Leu	Thr	Leu	Trp	Gln
	50					55					60				
Ser	Thr	Gly	Pro	Trp	Xaa	Pro	Trp	Xaa	Trp	Gln	Glu	Leu	Ala	Val	Thr
65					70					75				80	
Thr	Gly	Arg	Ile	Arg	Gly	Asp	Phe	Arg	Val	Thr	Phe	Ser	Ala	Thr	Arg
			85						90					95	
Asn	Ala	Thr	His	Arg	Gly	Ala	Val	Ala	Leu	Asp	Asp	Leu	Glu	Phe	Trp
		100						105					110		
Asp	Cys	Gly	Leu	Pro	Thr	Pro	Gln	Ala	Asn	Cys	Pro	Pro	Gly	His	His

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      115              120              125
His Cys Gln Asn Lys Val Cys Val Glu Pro Gln Gln Leu Cys Asp Gly
      130              135              140
Glu Asp Asn Cys Gly Asp Leu Ser Asp Glu Asn Pro Leu Thr Cys Gly
145      150      155      160
Arg His Ile Ala Thr Asp Phe Glu Thr Gly Leu Gly Pro Trp Asn Arg
      165              170              175
Ser Glu Gly Trp Ser Arg Asn His Arg Ala Gly Gly Pro Glu Arg Pro
      180      185      190
Ser Trp Pro Arg Arg Asp His Ser Arg Asn Ser Ala Xaa Arg Leu Val
      195      200      205
Phe Tyr Gln Tyr Leu Ser Gly Ser Glu Ala Gly Cys Leu Gln Leu Phe
      210      215      220
Leu Gln Thr Leu Gly Pro Gly Ala Pro Arg Ala Pro Val Leu Leu Arg
225      230      235      240
Arg Arg Arg Gly Glu Leu Gly Thr Ala Trp Val Arg Asp Arg Val Asp
      245      250      255
Ile Gln Ser Ala Tyr Pro Phe Gln Ile Leu Leu Ala Gly Gln Thr Gly
      260      265      270
Pro Gly Gly Val Val Gly Leu Asp Asp Leu Ile Leu Ser Asp His Cys
      275      280      285
Arg Pro Val Ser Glu Val Ser Thr Leu Gln Pro Leu Pro Pro Gly Pro
      290      295      300
Arg Ala Pro Ala Pro Gln Pro Leu Pro Pro Ser Ser Arg Leu Gln Asp
305      310      315      320
Ser Cys Lys Gln Gly His Leu Ala Cys Gly Asp Leu Cys Val Pro Pro
      325      330      335
Glu Gln Leu Cys Asp Phe Glu Glu Gln Cys Ala Gly Gly Glu Asp Glu
      340      345      350
Gln Ala Cys Gly Thr Thr Asp Phe Glu Ser Pro Glu Ala Gly Gly Trp
      355      360      365
Glu Asp Ala Ser Val Gly Arg Leu Gln Trp Arg Arg Val Ser Ala Gln
      370      375      380
Glu Ser Gln Gly Ser Ser Ala Ala Ala Ala Gly His Phe Leu Ser Leu
385      390      395      400
Gln Arg Ala Trp Gly Gln Leu Gly Ala Glu Ala Arg Val Leu Thr Pro
      405      410      415
Leu Leu Gly Pro Ser Gly Pro Ser Cys Glu Leu His Leu Ala Tyr Tyr
      420      425      430
Leu Gln Ser Gln Pro Arg Ala Gly Phe Val Gly Leu Val Asp Leu Asp
      435      440      445
Gly Pro Asp Gln Gln Xaa Ser Trp Gly Gly Gln Arg Asp Pro Glu Gly
      450      455      460
Leu
465

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&lt;210&gt; 5089

&lt;211&gt; 793

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5089

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60

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180  
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240  
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300  
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360  
cattcctttc ctcccttccc cctggcaggt agagactcta ctctctgtcc ccagatcctc  
420  
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480  
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720  
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780  
aaaaaaaaaa aaa  
793

&lt;210&gt; 5090

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5090

Xaa	Asp	His	Ile	Ser	Asp	Asp	Pro	His	Thr	Phe	Asn	His	Gln	Asn	Leu
1				5					10					15	
Thr	His	Cys	Ser	Arg	His	Gly	Ser	Gly	Pro	Asn	Ile	Ile	Leu	Thr	Gly
			20					25					30		
Asp	Ser	Ser	Pro	Gly	Phe	Ser	Lys	Glu	Ile	Ala	Ala	Ala	Leu	Ala	Gly
		35					40					45			
Val	Pro	Gly	Phe	Glu	Val	Ser	Ala	Ala	Gly	Leu	Glu	Leu	Gly	Leu	Gly
	50					55				60					
Leu	Glu	Asp	Glu	Leu	Arg	Met	Glu	Pro	Leu	Gly	Leu	Glu	Gly	Leu	Asn
65					70				75					80	
Met	Leu	Ser	Asp	Pro	Cys	Ala	Leu	Leu	Pro	Asp	Pro	Ala	Val	Glu	Glu
			85						90					95	
Ser	Phe	Arg	Ser	Asp	Arg	Leu	Gln								
						100									

&lt;210&gt; 5091

&lt;211&gt; 3150

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5091

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120  
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720  
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3150

&lt;210&gt; 5092

&lt;211&gt; 632

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5092

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Lys Arg Glu Arg Lys Gln Ser Phe Met Gly Asn Ser Gly Asn Ser Trp
      20           25           30
Ser His Thr Pro Phe Pro Lys Leu Glu Leu Gly Leu Gly Pro Gln Pro
      35           40           45
Met Ala Pro Arg Glu Leu Pro Thr Cys Ser Ile Cys Leu Glu Arg Leu
      50           55           60
Arg Asp Pro Ile Ser Leu Asp Cys Gly His Asp Phe Cys Ile Arg Cys
      65           70           75           80
Phe Ser Thr His Arg Leu Pro Gly Cys Glu Pro Pro Cys Cys Pro Glu
      85           90           95
Cys Arg Lys Ile Cys Lys Gln Lys Arg Gly Leu Arg Ser Leu Gly Glu
      100          105          110
Lys Met Lys Leu Leu Pro Gln Arg Pro Leu Pro Pro Ala Leu Gln Glu
      115          120          125
Thr Cys Pro Val Arg Ala Glu Pro Leu Leu Leu Val Arg Ile Asn Ala
      130          135          140
Ser Gly Gly Leu Ile Leu Arg Met Gly Ala Ile Asn Arg Cys Leu Lys
      145          150          155          160
His Pro Leu Ala Arg Asp Thr Pro Val Cys Leu Leu Ala Val Leu Gly
      165          170          175
Glu Gln His Ser Gly Lys Ser Phe Leu Leu Asn His Leu Leu Gln Gly
      180          185          190
Leu Pro Gly Leu Glu Ser Gly Glu Gly Gly Arg Pro Arg Gly Gly Glu
      195          200          205
Ala Ser Leu Gln Gly Cys Arg Trp Gly Ala Asn Gly Leu Ala Gly Gly
      210          215          220
Ile Trp Met Trp Ser His Pro Phe Leu Leu Gly Lys Glu Gly Lys Lys
      225          230          235          240
Val Ala Val Phe Leu Val Asp Thr Gly Asp Ala Met Ser Pro Glu Leu
      245          250          255
Ser Arg Glu Thr Arg Ile Lys Leu Cys Ala Leu Thr Thr Met Leu Ser
      260          265          270
Ser Tyr Gln Ile Leu Ser Thr Ser Gln Glu Leu Lys Asp Thr Asp Leu
      275          280          285
Asp Tyr Leu Glu Met Phe Val His Val Ala Glu Val Met Gly Lys His
      290          295          300
Tyr Gly Met Val Pro Ile Gln His Leu Asp Leu Leu Val Arg Asp Ser
      305          310          315          320
Ser His Pro Asn Lys Ala Gly Gln Gly His Val Gly Asn Ile Phe Gln
      325          330          335
Arg Leu Ser Gly Arg Tyr Pro Lys Val Gln Glu Leu Leu Gln Gly Lys
      340          345          350
Arg Ala Arg Cys Cys Leu Leu Pro Ala Pro Gly Arg Arg Arg Met Asn
      355          360          365
Gln Gly His Ala Ser Pro Gly Gly Asp Thr Asp Asp Asp Phe Arg His
      370          375          380
Leu Leu Gly Ala Tyr Val Ser Asp Val Leu Ser Ala Ala Pro Gln His

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385          390          395          400
Ala Lys Ser Arg Cys Gln Gly Tyr Trp Asn Glu Gly Arg Ala Val Ala
          405          410          415
Arg Gly Asp Arg Arg Leu Leu Thr Gly Gln Gln Leu Ala Gln Glu Ile
          420          425          430
Lys Asn Leu Ser Gly Trp Met Gly Arg Thr Gly Pro Gly Phe Thr Ser
          435          440          445
Pro Asp Glu Met Ala Ala Gln Leu His Asp Leu Arg Lys Val Glu Ala
          450          455          460
Ala Lys Arg Glu Phe Glu Glu Tyr Val Arg Gln Gln Asp Val Ala Thr
465          470          475          480
Lys Arg Ile Phe Ser Ala Leu Arg Val Leu Pro Asp Thr Met Arg Asn
          485          490          495
Leu Leu Ser Thr Gln Lys Asp Ala Ile Leu Ala Arg His Gly Val Ala
          500          505          510
Leu Leu Cys Lys Gly Arg Asp Gln Thr Leu Glu Ala Leu Glu Ala Glu
          515          520          525
Leu Gln Ala Thr Ala Lys Ala Phe Met Asp Ser Tyr Thr Met Arg Phe
530          535          540
Cys Gly His Leu Ala Ala Val Gly Gly Ala Val Gly Ala Gly Leu Met
545          550          555          560
Gly Leu Ala Gly Gly Val Val Gly Ala Gly Met Ala Ala Ala Ala Leu
          565          570          575
Ala Ala Glu Ala Gly Met Val Ala Ala Gly Ala Ala Val Gly Ala Thr
          580          585          590
Gly Ala Ala Val Val Gly Gly Gly Val Gly Ala Gly Leu Ala Ala Thr
          595          600          605
Val Gly Cys Met Glu Lys Glu Glu Asp Glu Arg Leu Leu Glu Gly Asp
610          615          620
Arg Glu Pro Leu Leu Gln Glu Glu
625          630

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&lt;210&gt; 5093

&lt;211&gt; 1662

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5093

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120
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&lt;211&gt; 365

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5094

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Trp Phe Gln Asp Pro Thr	Arg Phe Thr Gly Thr Met Asp Ala Phe Val	95
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His Val Ser Tyr Arg Glu	Leu Gly Ala Cys Val Arg Thr Ala Val Ala	185
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His Val Asp Ser Thr Trp	Leu Leu Leu Arg Arg Ile Arg Ala Glu Ser	290
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&lt;211&gt; 2230

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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<211> 114

<212> PRT

<213> Homo sapiens

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&lt;210&gt; 5102

&lt;211&gt; 436

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5102

Met Ala Lys Leu Leu Ser Cys Val Leu Gly Pro Arg Leu Tyr Lys Ile  
 1 5 10 15  
 Tyr Arg Glu Arg Asp Ser Glu Arg Ala Pro Ala Ser Val Pro Glu Thr  
 20 25 30  
 Pro Thr Ala Val Thr Ala Pro His Ser Ser Ser Trp Asp Thr Tyr Tyr  
 35 40 45  
 Gln Pro Arg Ala Leu Glu Lys His Ala Asp Ser Ile Leu Ala Leu Ala  
 50 55 60  
 Ser Val Phe Trp Ser Ile Ser Tyr Tyr Ser Ser Pro Phe Ala Phe Phe  
 65 70 75 80  
 Tyr Leu Tyr Arg Lys Gly Tyr Leu Ser Leu Ser Lys Val Val Pro Phe  
 85 90 95  
 Ser His Tyr Ala Gly Thr Leu Leu Leu Leu Ala Gly Val Ala Cys  
 100 105 110  
 Leu Arg Gly Ile Gly Arg Trp Thr Asn Pro Gln Tyr Arg Gln Phe Ile  
 115 120 125  
 Thr Ile Leu Glu Ala Thr His Arg Asn Gln Ser Ser Glu Asn Lys Arg  
 130 135 140  
 Gln Leu Ala Asn Tyr Asn Phe Asp Phe Arg Ser Trp Pro Val Asp Phe  
 145 150 155 160  
 His Trp Glu Glu Pro Ser Ser Arg Lys Glu Ser Arg Gly Gly Pro Ser

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      165      170      175
Arg Arg Gly Val Ala Leu Leu Arg Pro Glu Pro Leu His Arg Gly Thr
      180      185      190
Ala Asp Thr Leu Leu Asn Arg Val Lys Lys Leu Pro Cys Gln Ile Thr
      195      200      205
Ser Tyr Leu Val Ala His Thr Leu Gly Arg Arg Met Leu Tyr Pro Gly
      210      215      220
Ser Val Tyr Leu Leu Gln Lys Ala Leu Met Pro Ala Leu Leu Gln Gly
      225      230      235      240
Gln Ala Arg Leu Val Glu Glu Cys Asn Gly Arg Arg Ala Lys Leu Leu
      245      250      255
Ala Cys Asp Gly Asn Glu Ile Asp Thr Met Phe Val Asp Arg Arg Gly
      260      265      270
Thr Ala Glu Pro Gln Gly Gln Lys Leu Val Ile Cys Cys Glu Gly Asn
      275      280      285
Ala Gly Phe Tyr Glu Val Gly Cys Val Ser Thr Pro Leu Glu Ala Gly
      290      295      300
Tyr Ser Val Leu Gly Trp Asn His Pro Gly Phe Ala Gly Ser Thr Gly
      305      310      315      320
Val Pro Phe Pro Gln Asn Glu Ala Asn Ala Met Asp Val Val Val Gln
      325      330      335
Phe Ala Ile His Arg Leu Gly Phe Gln Pro Gln Asp Ile Val Ile Tyr
      340      345      350
Ala Trp Ser Ile Gly Gly Phe Thr Ala Thr Trp Ala Ala Met Ser Tyr
      355      360      365
Pro Asp Val Ser Ala Met Ile Leu Asp Ala Ser Phe Asp Asp Leu Val
      370      375      380
Pro Leu Ala Leu Lys Val Met Pro Asp Ser Trp Arg Gly Leu Val Thr
      385      390      395      400
Arg Thr Val Arg Gln His Leu Asn Leu Asn Ala Glu Gln Leu Cys
      405      410      415
Arg Tyr Gln Gly Pro Val Leu Leu Ile Arg Arg Thr Lys Asp Glu Ile
      420      425      430
Ile Thr Thr Thr
      435

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&lt;210&gt; 5103

&lt;211&gt; 1982

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5103

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tccatgactt tgtgctatatt ctaatatatta aataaaaaaac atttcaaatt ttgcacaaat
120
aatattaggcc aatacataac tagatttgaa taaagtcaga tgaagcaata attcctcctc
180
tgtgtttgaa aggaatgagt gtggttacaa agtcacagga tgagtccttg ggatctgggg
240
tgaggagaagg ggtggatcaa gaatgacttg ggtttgtcac tccctagcag gctgagggcg
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360

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480  
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540  
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600  
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660  
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720  
tcttttagctg gtaagatcta gcactgaaac aactcttaat ttttaacttg tgagggttct  
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1200  
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1260  
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1320  
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1740  
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1860  
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1980

99  
1982

<210> 5104  
<211> 167  
<212> PRT  
<213> Homo sapiens

<400> 5104  
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Leu His Leu Phe Pro Gln Glu Leu Leu Gly His Phe Phe Cys Leu Trp  
35 40 45  
Pro Ala Ala Ser Leu Lys Thr Thr Lys Asp Leu Met Ser Lys Ser Leu  
50 55 60  
Ser Gly Val Cys Pro Ala Ser Ser Gly Leu Leu Arg Thr Pro His Pro  
65 70 75 80  
Glu Gly Ala Arg Arg Pro Ala Gly Leu Ala Gly Pro Gly Ser Ser Leu  
85 90 95  
Thr Ala Gly Trp Thr Ala Phe Arg Thr Cys Pro Gly Cys Ser Ala Phe  
100 105 110  
Val Ala Gly Ser Asn Trp Arg Asn Leu Glu Arg Gly Ser Cys Ala Cys  
115 120 125  
Lys Asp Gly Phe Cys Val Ser Ser Gly Phe Leu Leu Ser Gly Pro Gly  
130 135 140  
Ser Ser Leu Val Pro Tyr Arg Pro Leu Phe Val His Gly Leu Ala Leu  
145 150 155 160  
Tyr Glu Arg Ala Met Cys Phe  
165

<210> 5105  
<211> 1359  
<212> DNA  
<213> Homo sapiens

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120  
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180  
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240  
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 660  
 gagactccct ggaggaagct gtgctttggg aagcagctct tcctggaggc tgtggaacgg  
 720  
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 780  
 gaggcgcagc tgccagaccc ggccatcgag gaccagggtg gggagtacgt gcagcccatg  
 840  
 ctgagcaagt acgcggctgt gtgcgtgcgc tgccctggct acggcaccag aaccaacact  
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 960  
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 1080  
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 1140  
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 1200  
 gccagtgagg agcagcagag tctgatacta ggtctaggac cggccgaggt ataccatgaa  
 1260  
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 1320  
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<210> 5106

<211> 178

<212> PRT

<213> Homo sapiens

<400> 5106

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Pro	Ala	Ala	Ala	Ala	Gly	Leu	Ala	Gly	Pro	Arg	Ala	Ser	Thr	Ala	Lys
		20						25					30		
Gly	Asp	Val	Ile	Cys	Tyr	Tyr	Gly	Asn	Arg	Gly	Glu	Pro	Asp	Pro	Ile
	35						40				45				
Val	Leu	Thr	Pro	Gly	Thr	Tyr	Gly	Leu	Ser	Asn	Ala	Leu	Leu	Glu	Thr
	50				55					60					
Pro	Trp	Arg	Lys	Leu	Cys	Phe	Gly	Lys	Gln	Leu	Phe	Leu	Glu	Ala	Val
65				70					75					80	
Glu	Arg	Ser	Gln	Ala	Leu	Pro	Lys	Asp	Val	Leu	Ile	Ala	Ser	Leu	Leu
		85						90					95		
Asp	Val	Leu	Asn	Asn	Glu	Glu	Ala	Gln	Leu	Pro	Asp	Pro	Ala	Ile	Glu
	100						105						110		
Asp	Gln	Gly	Gly	Glu	Tyr	Val	Gln	Pro	Met	Leu	Ser	Lys	Tyr	Ala	Ala
	115						120					125			
Val	Cys	Val	Arg	Cys	Pro	Gly	Tyr	Gly	Thr	Arg	Thr	Asn	Thr	Ile	Ile

130		135		140
Leu Val Asp Ala Asp Gly His Val Thr Phe Thr Glu Arg Ser Met Met				
145		150		155
Asp Lys Asp Leu Ser His Trp Glu Thr Arg Thr Tyr Glu Phe Thr Leu				
	165		170	175
Gln Ser				

&lt;210&gt; 5107

&lt;211&gt; 1207

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5107

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120
acagggatga ccaccacctg gaacggggac agccacagtg gccatttccc cccgcagctt
180
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240
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300
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540
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660
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720
gtcagctggg ttgggggtct ccatgtgagg gaggtgatg gcactcgcag gtttttgctt
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1020
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1080
tgctcactcc ccacaggat gaccaccacc tggaacgggg acagccacag tggcccctta
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1200

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1207

<210> 5108  
<211> 83  
<212> PRT  
<213> Homo sapiens

<400> 5108  
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1 5 10 15  
Phe Ile Tyr Leu Phe Arg Asp Arg Val Ser Leu Cys Arg Xaa Arg Gly  
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Val Gln Trp Arg Asn Leu Ser Ser Leu Gln Pro Pro Pro Gly Phe  
35 40 45  
Lys Arg Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp Asp Tyr Arg Arg  
50 55 60  
Val Pro Pro Cys Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Arg Val  
65 70 75 80  
Ser Pro Cys

<210> 5109  
<211> 651  
<212> DNA  
<213> Homo sapiens

<400> 5109  
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120  
caagcatggc aggaagcttc agataattgt tttatggatt ctgacatcaa agtacttgaa  
180  
gatcagtttg atgaaatcat agtagatata gccacaaaac gtaagcagta tcccagaaaag  
240  
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300  
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360  
ttcaactttt cccattcaa catgatgttg gctgtggatt tgtcatatat ggtttttatt  
420  
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480  
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651

<210> 5110  
<211> 206  
<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5110

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Phe Glu Ser Ala Val Gln Glu Asn Ile Ser Ile Asn Gly Gln Ala Trp
      20           25           30
Gln Glu Ala Ser Asp Asn Cys Phe Met Asp Ser Asp Ile Lys Val Leu
      35           40           45
Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys
      50           55           60
Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala
      65           70           75           80
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp
      85           90           95
Leu Lys Tyr Asp Pro Asp Pro Val Leu Asn Gly Asn Ala Phe Asn Phe
      100          105          110
Ser Pro Phe Asn Met Met Leu Ala Val Asp Leu Ser Tyr Met Val Phe
      115          120          125
Ile Thr Ser Ala Pro His Met Glu Asn Leu Lys Cys Arg Gly Glu Thr
      130          135          140
Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu Pro Ala Leu Ile
      145          150          155          160
Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met Gln Pro Val Ile
      165          170          175
His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser Cys His Arg Lys
      180          185          190
Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile Glu Thr
      195          200          205

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&lt;210&gt; 5111

&lt;211&gt; 2247

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5111

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480
tctatcggtt gcacgccaac atcaacacag gcgaagatgg tctccaagcg cattgcccag
540

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600  
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660  
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720  
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780  
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1920  
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1980  
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2100  
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2160

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 2247

<210> 5112  
 <211> 581  
 <212> PRT  
 <213> Homo sapiens

<400> 5112  
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 Arg Gly Gly Lys Asp Ala Ser Val Ala His Glu Val Ala Ser Leu Ala  
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 Leu Pro Trp Phe Ala Val Val Leu Gly Tyr Arg Glu Arg Pro Arg Val  
 35 40 45  
 Ser Gly Arg Pro Ser Leu Gly Ala Pro Gln Arg Leu Arg Ala Tyr Gly  
 50 55 60  
 Gly Arg Lys Gly Leu Glu Ala Ala Pro Trp Val Thr Thr Ala Arg Pro  
 65 70 75 80  
 Thr Phe Pro His Val Ala Ala Lys Thr Gly Ser Gly Ala Ser Ile Gly  
 85 90 95  
 Cys Thr Pro Thr Ser Thr Gln Ala Lys Met Val Ser Lys Arg Ile Ala  
 100 105 110  
 Gln Glu Thr Phe Asp Ala Ala Val Arg Glu Asn Ile Glu Glu Phe Ala  
 115 120 125  
 Met Gly Pro Glu Glu Ala Val Lys Glu Ala Val Glu Gln Phe Glu Ser  
 130 135 140  
 Gln Gly Val Asp Leu Ser Asn Ile Val Lys Thr Ala Pro Lys Val Ser  
 145 150 155 160  
 Ala Asp Gly Ser Gln Glu Pro Thr His Asp Ile Leu Gln Met Leu Ser  
 165 170 175  
 Asp Leu Gln Glu Ser Val Ala Ser Ser Arg Pro Gln Glu Val Ser Ala  
 180 185 190  
 Tyr Leu Thr Arg Phe Cys Asp Gln Cys Lys Gln Asp Lys Ala Cys Arg  
 195 200 205  
 Phe Leu Ala Ala Gln Lys Gly Ala Tyr Pro Ile Ile Phe Thr Ala Arg  
 210 215 220  
 Lys Leu Ala Thr Ala Gly Asp Gln Gly Leu Leu Gln Ser Leu Asn  
 225 230 235 240  
 Ala Leu Ser Val Leu Thr Asp Gly Gln Pro Asp Leu Leu Asp Ala Gln  
 245 250 255  
 Gly Leu Gln Leu Leu Val Ala Thr Leu Thr Gln Asn Ala Asp Glu Ala  
 260 265 270  
 Asp Leu Thr Cys Ser Gly Ile Arg Cys Val Arg His Ala Cys Leu Lys  
 275 280 285  
 His Glu Gln Asn Arg Gln Asp Leu Val Lys Ala Gly Val Leu Pro Leu  
 290 295 300  
 Leu Thr Gly Ala Ile Thr His His Gly His His Thr Asp Val Val Arg  
 305 310 315 320  
 Glu Ala Cys Trp Ala Leu Arg Val Met Thr Phe Asp Asp Ile Arg  
 325 330 335  
 Val Pro Phe Gly His Ala His Asn His Ala Lys Met Ile Val Gln Glu

```

          340          345          350
Asn Lys Gly Leu Lys Val Leu Ile Glu Ala Thr Lys Ala Phe Leu Asp
          355          360          365
Asn Pro Gly Ile Leu Ser Glu Leu Cys Gly Thr Leu Ser Arg Leu Ala
          370          375          380
Ile Arg Asn Glu Phe Cys Gln Glu Val Val Asp Leu Gly Gly Leu Ser
          385          390          395          400
Ile Leu Val Ser Leu Leu Ala Asp Cys Asn Asp His Gln Met Arg Asp
          405          410          415
Gln Ser Gly Val Gln Glu Leu Val Lys Gln Val Leu Ser Thr Leu Arg
          420          425          430
Ala Ile Ala Gly Asn Asp Asp Val Lys Asp Ala Ile Val Arg Ala Gly
          435          440          445
Gly Thr Glu Ser Ile Val Ala Ala Met Thr Gln His Leu Thr Ser Pro
          450          455          460
Gln Val Trp Glu Gln Ser Cys Ala Ala Leu Cys Phe Leu Ala Leu Arg
          465          470          475          480
Lys Pro Asp Asn Ser Arg Ile Ile Val Glu Gly Gly Ala Val Ala
          485          490          495
Ala Leu Gln Ala Met Lys Ala His Pro Gln Lys Ala Gly Val Gln Lys
          500          505          510
Gln Ala Cys Met Leu Ile Arg Asn Leu Val Ala His Gly Gln Ala Phe
          515          520          525
Ser Lys Pro Ile Leu Asp Leu Gly Ala Glu Ala Leu Ile Met Gln Ala
          530          535          540
Arg Ser Ala His Arg Asp Cys Glu Asp Val Ala Lys Ala Ala Leu Arg
          545          550          555          560
Asp Leu Gly Cys His Val Glu Leu Arg Glu Leu Trp Thr Gly Gln Arg
          565          570          575
Gly Asn Leu Ala Pro
          580

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&lt;210&gt; 5113

&lt;211&gt; 472

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5113

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cagactatgg tccagcctct gctccatgtg cccctgtgg gtctttgtga tctcagtcct
60
ggcaccttga cccgctgctt gttctgctct cctttaaaact ccatgcacct gacacctgta
120
attggcacgc agcgcggagc ctggcacctg cagtgtagac aactggcca ccgctcagtg
180
caagagggcc cctttgctaa tgtgcacagc tctttatgcc tttttccta tgccttttg
240
gattggagca agagattttt ttttccaagt aaagaacaat ttatgttcct aaatactttt
300
tttccttgac atgatgaagt tgagcaaggt ggctatagaa ctttttttct taattttatt
360
gcccaagtaa tgttctttac aaagtaggga aatacagata cataaaaaga agactgcca
420
tccccgtaa tcccaccagt cgcattcccta cccgtcttta ggagattccg ga
472

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<210> 5114  
<211> 100  
<212> PRT  
<213> Homo sapiens

<400> 5114  
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1 5 10 15  
Ser Pro Gly Thr Leu Thr Arg Cys Leu Phe Cys Ser Pro Leu Asn Ser  
20 25 30  
Met His Leu Thr Pro Val Ile Gly Thr Gln Arg Gly Ala Trp His Leu  
35 40 45  
Gln Cys Arg His Thr Gly His Arg Ser Val Gln Glu Gly Pro Phe Ala  
50 55 60  
Asn Val His Ser Ser Leu Cys Leu Phe Ser Tyr Ala Phe Leu Asp Trp  
65 70 75 80  
Ser Lys Arg Phe Phe Phe Pro Ser Lys Glu Gln Phe Met Phe Leu Asn  
85 90 95  
Thr Phe Phe Pro  
100

<210> 5115  
<211> 1003  
<212> DNA  
<213> Homo sapiens

<400> 5115  
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ttttattttac aaaatatata ctgaatacta tacatctggc cccatcacca tggaacaac  
120  
tccaaagcct gcctggggat ttgtgcccaa gccagccca ggagggttag agaaagcaaa  
180  
ggtgtctacc agccgccgcc atcccagaag gaaagcctct tcccatgagt gcctgtgggt  
240  
gggcggtgag ctcaacaccc acaaagggca gaaggcctgg gggcagttag gtgatggtga  
300  
gggcagtggga agcagatgct gctgaggggtg ggtggaggga gaaatggaga cccagcaccc  
360  
agcaggggga gccaggtgac agcaggggaa gcagatggca gggccccagg cagtccagga  
420  
ccccaggctc tgaaggggtg ggcaaggggg tcaggtcacg tcttgacatc cagcagtggc  
480  
tccgcttggtg ctggtagccc actctgccca gccatgtccc accttggggt ctcccatgtc  
540  
agagagcagc tctgtctcag catcatgcag ttcctcagct gggcatagc tgtacatggg  
600  
gagcaggtgc atgcgcagcc ggtccaccg cttttttctt tgtacataca ttaccacagc  
660  
caccaccacc ccgaccaggg tgatgaggaa gaaggcccc aacacatagc ccaccatgga  
720  
gtcgtgttg gcctgggggg cattgggcac agtgggtgta ctcatgacat cagcagccgg  
780

agggctgggt ggtcagcatg ggcagtggcg cttcgggagg gcgcctccac tgggctcccc  
 840  
 agtcgtatgc tcacgtcccc aggtcaaggg ggcattgccag ggtggggagg gcgtcaggcc  
 900  
 gctgctagga tgcgggccag caacagcgga ncaggaggtg gttcccacgg cgctgggnag  
 960  
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 1003

<210> 5116  
 <211> 226  
 <212> PRT  
 <213> Homo sapiens

<400> 5116  
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 1 5 10 15  
 Arg Gly Ser Gln Val Thr Ala Gly Glu Ala Asp Gly Arg Ala Pro Gly  
 20 25 30  
 Ser Pro Gly Pro Gln Ala Leu Lys Gly Gly Ala Arg Gly Ser Gly His  
 35 40 45  
 Val Leu Thr Ser Ser Ser Gly Ser Ala Cys Ala Gly Ser Pro Leu Cys  
 50 55 60  
 Pro Ala Met Ser His Leu Gly Val Ser His Val Arg Glu Gln Leu Leu  
 65 70 75 80  
 Leu Ser Ile Met Gln Phe Leu Ser Trp Val Ile Ala Val His Gly Glu  
 85 90 95  
 Gln Val His Ala Gln Pro Val His Pro Leu Phe Leu Leu Tyr Ile His  
 100 105 110  
 Tyr His Ser His His His Pro Asp Gln Gly Asp Glu Glu Gly Pro  
 115 120 125  
 Gln His Ile Ala His His Gly Val Ala Val Gly Leu Gly Gly Ile Gly  
 130 135 140  
 His Ser Gly Val Thr His Asp Ile Ser Ser Arg Arg Ala Gly Trp Ser  
 145 150 155 160  
 Ala Trp Ala Val Ala Leu Arg Glu Gly Ala Ser Thr Gly Leu Pro Ser  
 165 170 175  
 Arg Met Leu Ile Val Pro Gly Gln Gly Gly Met Pro Gly Trp Gly Gly  
 180 185 190  
 Arg Gln Ala Ala Ala Arg Met Arg Ala Ser Asn Ser Gly Xaa Gly Gly  
 195 200 205  
 Gly Ser His Gly Ala Gly Xaa Ala His Ala Gly Gly Gly Gly Val Gly  
 210 215 220  
 Gly Cys  
 225

<210> 5117  
 <211> 1180  
 <212> DNA  
 <213> Homo sapiens

<400> 5117  
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 60

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 120  
 agtgggaaaa gtgcaacagc gaacaccatc cttggagagg aaatctttga ttctagaatt  
 180  
 gctgccaag ctgttacaa gaactgtcaa aaagcatccc gggatggca ggggagagac  
 240  
 cttcttggtg tagacactcc agggctcttt gacaccaagg agagcctgga caccacctgc  
 300  
 aaggaaatca gccgctgcat catctctccc tgcccagggc cccatgctat tgccttagtt  
 360  
 ctgctgctgg gccgctacac agaggaggag cagaaaaccg ttgcattgat caaggctgtc  
 420  
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 540  
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 600  
 gaaagtcaag tgcaggagtt ggtggagctg atagagaaaa tggcgcagtg caacgaaggg  
 660  
 gcttactttt ctgatgacat atacaaggac acagaggaaa ggctgaaaca acgggaagag  
 720  
 gttttgagga aaatctacac tgaccaatta aatgaagaaa ttaaactagt agaagaggat  
 780  
 aagcataaat cagaggaaga aaaggagaaa gaaattaaat tactaaaatt aaaatatgat  
 840  
 gaaaaataa aaaatataag ggaagaagct gagagaaata tatttaaaga tgtttttaat  
 900  
 aggatttggg agatgctttc agaaatatgg cataggtttt tgcgaaatg taagttttat  
 960  
 tcttctaat ttactgtgat ttgttaatgg atgaattgta tttgcaaag atagttagag  
 1020  
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 1080  
 ttaatgtata taatgtgatt tttaaataata tatatatata tatacacaca ttgtgaaata  
 1140  
 atgaaataaa ggtaattaac acatctaaaa aaaaaaaaaa  
 1180

&lt;210&gt; 5118

&lt;211&gt; 300

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5118

Met	Ala	Glu	Ser	Glu	Asp	Arg	Ser	Leu	Arg	Ile	Val	Leu	Val	Gly	Lys
1				5					10					15	
Thr	Gly	Ser	Gly	Lys	Ser	Ala	Thr	Ala	Asn	Thr	Ile	Leu	Gly	Glu	Glu
			20					25					30		
Ile	Phe	Asp	Ser	Arg	Ile	Ala	Ala	Gln	Ala	Val	Thr	Lys	Asn	Cys	Gln
		35				40				45					
Lys	Ala	Ser	Arg	Glu	Trp	Gln	Gly	Arg	Asp	Leu	Leu	Val	Val	Asp	Thr
		50				55				60					
Pro	Gly	Leu	Phe	Asp	Thr	Lys	Glu	Ser	Leu	Asp	Thr	Thr	Cys	Lys	Glu

65					70					75					80
Ile	Ser	Arg	Cys	Ile	Ile	Ser	Ser	Cys	Pro	Gly	Pro	His	Ala	Ile	Val
				85					90					95	
Leu	Val	Leu	Leu	Leu	Gly	Arg	Tyr	Thr	Glu	Glu	Glu	Gln	Lys	Thr	Val
			100					105						110	
Ala	Leu	Ile	Lys	Ala	Val	Phe	Gly	Lys	Ser	Ala	Met	Lys	His	Met	Val
		115					120					125			
Ile	Leu	Phe	Thr	Arg	Lys	Glu	Glu	Leu	Glu	Gly	Gln	Ser	Phe	His	Asp
	130				135						140				
Phe	Ile	Ala	Asp	Ala	Asp	Val	Gly	Leu	Lys	Ser	Ile	Val	Lys	Glu	Cys
145				150					155					160	
Gly	Asn	Arg	Cys	Cys	Ala	Phe	Ser	Asn	Ser	Lys	Lys	Thr	Ser	Lys	Ala
			165					170						175	
Glu	Lys	Glu	Ser	Gln	Val	Gln	Glu	Leu	Val	Glu	Leu	Ile	Glu	Lys	Met
		180					185					190			
Val	Gln	Cys	Asn	Glu	Gly	Ala	Tyr	Phe	Ser	Asp	Asp	Ile	Tyr	Lys	Asp
	195						200					205			
Thr	Glu	Glu	Arg	Leu	Lys	Gln	Arg	Glu	Glu	Val	Leu	Arg	Lys	Ile	Tyr
	210				215						220				
Thr	Asp	Gln	Leu	Asn	Glu	Glu	Ile	Lys	Leu	Val	Glu	Glu	Asp	Lys	His
225				230					235					240	
Lys	Ser	Glu	Glu	Glu	Lys	Glu	Lys	Glu	Ile	Lys	Leu	Leu	Lys	Leu	Lys
			245					250						255	
Tyr	Asp	Glu	Lys	Ile	Lys	Asn	Ile	Arg	Glu	Glu	Ala	Glu	Arg	Asn	Ile
	260						265					270			
Phe	Lys	Asp	Val	Phe	Asn	Arg	Ile	Trp	Lys	Met	Leu	Ser	Glu	Ile	Trp
	275					280						285			
His	Arg	Phe	Leu	Ser	Lys	Cys	Lys	Phe	Tyr	Ser	Ser				
	290				295						300				

&lt;210&gt; 5119

&lt;211&gt; 1450

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5119

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cagctggtga aaatcttata cttgagtaga aaggaatcaa acaagtcata taccaccgt
120
cttcctgtct gtactggaac catcacaggc ttttgaggaa ctacttttga accgttcccc
180
agagaggcat ttgccccagt agctatgatt ataatttgca atgacagcca cagtgttttc
240
atcctttctg gcttctctaa caagccacat ttggagaaga tactttttng gatcattttt
300
attttttatt ttttgactct tgcaggaaat atggatcatag ttcttgtgtc cttgaaggat
360
ccaaaactcc acatccctat gtattttttt ctttccaacc ttctcttggt agacctctgt
420
ttgaccagca gctgtgttcc acagatgttg attaacttct gggggccaga aaagaccatc
480
agctacattg gctgtgccat tcaactctat gtttttttgt ggcttggggc cacggaatat
540

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gtccttcttg ttgtcatggc tgtggattgt tatgtagcag tgtgtcatcc actgcaaaat  
 600  
 accatgatca tgcacccaaa actttgtctg cagctggcta tcttggcatg ggggactggc  
 660  
 ttggccagct ctctgatcca gtcccttgcc accctccggt tacccttctg ctcccagcgg  
 720  
 atgggtggatg atgttgtttg tgaagtccca gctctgattc agctctccag tactgatact  
 780  
 acctacagtg aaattcagat gtctatcgcc agtgttgccc tcttggatgat gcccttgatc  
 840  
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 900  
 ggacagaaga aagcatttgg cacctgcatc tctcaccttc ttgtggtttc tctcttttat  
 960  
 ggcaactgtca cagggtgtcta cttcaacca aaaaatcact atcctcatga atggggcaaa  
 1020  
 tttctcactc tttctacac tgtagtaacc ccaactctta atccctcat ctacactcta  
 1080  
 aggaacaagg aggtaaaggg agcactaata agattgggga ggaggacctg ggattcccag  
 1140  
 aataactaac aagggttaaca tatgtttacc tttgttaac ctaagaatag agaacaacct  
 1200  
 catcacaaaa agctggagat acacctccta agccaaaagt aggagagaaa gagctgcatt  
 1260  
 ctgttcaggt tgagatttca gtttccttca tcaatcaatt gggcccttaa attcttcata  
 1320  
 ttgttgattt agacacagta tgggtataaaa attaatatat ttaatagcta ttgtcttgaa  
 1380  
 aaggacacaa tgcaattgaa tggggggagga ggagaagaca caagaaacac attacttgca  
 1440  
 aaataaaata  
 1450

<210> 5120

<211> 314

<212> PRT

<213> Homo sapiens

<400> 5120

Met Ile Ile Ile Cys Asn Asp Ser His Ser Asp Phe Ile Leu Leu Gly  
 1 5 10 15  
 Phe Ser Asn Lys Pro His Leu Glu Lys Ile Leu Phe Xaa Ile Ile Phe  
 20 25 30  
 Ile Phe Tyr Phe Leu Thr Leu Ala Gly Asn Met Val Ile Val Leu Val  
 35 40 45  
 Ser Leu Lys Asp Pro Lys Leu His Ile Pro Met Tyr Phe Phe Leu Ser  
 50 55 60  
 Asn Leu Ser Leu Val Asp Leu Cys Leu Thr Ser Ser Cys Val Pro Gln  
 65 70 75 80  
 Met Leu Ile Asn Phe Trp Gly Pro Glu Lys Thr Ile Ser Tyr Ile Gly  
 85 90 95  
 Cys Ala Ile Gln Leu Tyr Val Phe Leu Trp Leu Gly Ala Thr Glu Tyr  
 100 105 110  
 Val Leu Leu Val Val Met Ala Val Asp Cys Tyr Val Ala Val Cys His



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      115              120              125
Pro Leu Gln Asn Thr Met Ile Met His Pro Lys Leu Cys Leu Gln Leu
      130              135              140
Ala Ile Leu Ala Trp Gly Thr Gly Leu Ala Gln Ser Leu Ile Gln Ser
145              150              155              160
Pro Ala Thr Leu Arg Leu Pro Phe Cys Ser Gln Arg Met Val Asp Asp
      165              170              175
Val Val Cys Glu Val Pro Ala Leu Ile Gln Leu Ser Ser Thr Asp Thr
      180              185              190
Thr Tyr Ser Glu Ile Gln Met Ser Ile Ala Ser Val Val Leu Leu Val
      195              200              205
Met Pro Leu Ile Ile Ile Leu Ser Ser Ser Gly Ala Ile Ala Lys Ala
      210              215              220
Val Leu Arg Ile Lys Ser Thr Ala Gly Gln Lys Lys Ala Phe Gly Thr
225              230              235              240
Cys Ile Ser His Leu Leu Val Val Ser Leu Phe Tyr Gly Thr Val Thr
      245              250              255
Gly Val Tyr Leu Gln Pro Lys Asn His Tyr Pro His Glu Trp Gly Lys
      260              265              270
Phe Leu Thr Leu Phe Tyr Thr Val Val Thr Pro Thr Leu Asn Pro Leu
      275              280              285
Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys Gly Ala Leu Ile Arg Leu
      290              295              300
Gly Arg Arg Thr Trp Asp Ser Gln Asn Asn
305              310

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&lt;210&gt; 5121

&lt;211&gt; 944

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5121

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cgggggcgac gcggctgagg gcttctcgtc ggggtcgggg ctgcagccgt catgccgggg
120
atagtggagc tgcccactct agaggagctg aaagtagatg aggtgaaaat tagttctgct
180
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240
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300
aacaagtgtg ctttggactt ctttaggcag ataaaacgtc actgtgcaga gccttttaca
360
gaatattgga cttgcattga ttatactggc cagcagttat ttcgtcactg tcgcaaacag
420
caggcaaagt ttgacgagtg tgtgctggac aaactgggct ggggtgcggc tgacctggga
480
gaactgtcaa aggtcaccaa agtgaaaaca gatcgacctt taccggagaa tccctatcac
540
tcaagaccaa gaccggatcc cagccctgag atcgaggag atctgcagcc tgccacacat
600
ggcagccgct tttatttctg gaccaagtaa agatgggtcc gtggcccaca ctcggtcatg
660

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tgctcagaca acgactgatg aaaacgcca tgcggtttgc atcgactgat agtgtgttct  
 720  
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 780  
 ccatttcctg tccattaaaa tttttaagg aaacggttgt attttattat gttttatgtg  
 840  
 accttttggc ctttaaagat gacttcccct tgcttttttc ttcttgtggt cctgcctgtt  
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 944

&lt;210&gt; 5122

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5122

Met Pro Gly Ile Val Glu Leu Pro Thr Leu Glu Glu Leu Lys Val Asp  
 1 5 10 15  
 Glu Val Lys Ile Ser Ser Ala Val Leu Lys Ala Ala Ala His His Tyr  
 20 25 30  
 Gly Ala Gln Cys Asp Lys Pro Asn Lys Glu Phe Met Leu Cys Arg Trp  
 35 40 45  
 Glu Glu Lys Asp Pro Arg Arg Cys Leu Glu Glu Gly Lys Leu Val Asn  
 50 55 60  
 Lys Cys Ala Leu Asp Phe Phe Arg Gln Ile Lys Arg His Cys Ala Glu  
 65 70 75 80  
 Pro Phe Thr Glu Tyr Trp Thr Cys Ile Asp Tyr Thr Gly Gln Gln Leu  
 85 90 95  
 Phe Arg His Cys Arg Lys Gln Gln Ala Lys Phe Asp Glu Cys Val Leu  
 100 105 110  
 Asp Lys Leu Gly Trp Val Arg Pro Asp Leu Gly Glu Leu Ser Lys Val  
 115 120 125  
 Thr Lys Val Lys Thr Asp Arg Pro Leu Pro Glu Asn Pro Tyr His Ser  
 130 135 140  
 Arg Pro Arg Pro Asp Pro Ser Pro Glu Ile Glu Gly Asp Leu Gln Pro  
 145 150 155 160  
 Ala Thr His Gly Ser Arg Phe Tyr Phe Trp Thr Lys  
 165 170

&lt;210&gt; 5123

&lt;211&gt; 1139

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5123

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 120  
 agccatagga tagatcctgg agcttccctg agcctgtttt cttgcctggg agttagccat  
 180  
 gccttgtggg gctgccaaga gggtaaagta gagagatggg tctagcttga tacagtatag  
 240

gcagctgctg gatgtcagct gtggttatga tcagctccat cttgttatga tgaagaccct  
 300  
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 360  
 cagaacacagg cttgcatgct gatccgaaac ctggtggccc acggccaggc cttctcgaag  
 420  
 cccatcctgg acctgggggc tgaggcactc atcatgcagg cccgatctgc ccaccgtgac  
 480  
 tgtgaggacg tggccaaggc cgccctgcgg gacctgggtt gtcattgtcga gctccgagag  
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 660  
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 720  
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 780  
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 840  
 acgcccacc agagggggca aagggcacgt cccatcactc actgcctgt ctgaaatgtg  
 900  
 gcagccactg tgggcccagg tcagggcagg gcaggcgatt ccagtgggt tgggcccct  
 960  
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 1020  
 aaatgggtct cagatgtcc gccctgcttg gcccagctt gtctgtctct gggctctggg  
 1080  
 ccagccagga tacctgataa taaaagatca ttgggtgaaa aaaaaaaaaa aaaaaaaaaa  
 1139

&lt;210&gt; 5124

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5124

Ser	Ala	Pro	Ser	Cys	Tyr	Asp	Glu	Asp	Pro	Glu	Val	Arg	Val	Asp	Pro
1				5					10					15	
Thr	Pro	Lys	Pro	His	Leu	Ala	Ala	His	Ser	Cys	Ser	Leu	Leu	Gln	Lys
			20					25						30	
Gln	Ala	Cys	Met	Leu	Ile	Arg	Asn	Leu	Val	Ala	His	Gly	Gln	Ala	Phe
		35					40					45			
Ser	Lys	Pro	Ile	Leu	Asp	Leu	Gly	Ala	Glu	Ala	Leu	Ile	Met	Gln	Ala
		50				55					60				
Arg	Ser	Ala	His	Arg	Asp	Cys	Glu	Asp	Val	Ala	Lys	Ala	Ala	Leu	Arg
65					70				75					80	
Asp	Leu	Gly	Cys	His	Val	Glu	Leu	Arg	Glu	Leu	Trp	Thr	Gly	Gln	Arg
				85					90					95	
Gly	Asn	Leu	Ala	Pro											
				100											

&lt;210&gt; 5125

&lt;211&gt; 6244

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5125

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120
tcctcagtc cactctcca ggcaacctgc ctcagcctga gtccttcagt ccaccatcat
180
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 <213> Homo sapiens

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 35 40 45  
 Glu Ile Leu Cys Met Gln Pro Thr Gly Lys Arg Pro Gly Ser Gln  
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 <212> PRT  
 <213> Homo sapiens

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 <212> DNA  
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 <212> PRT  
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 Tyr Gly Pro Glu Ala Ile Ala Gln Tyr Gln Gly Arg Glu Leu Tyr Glu  
 35 40 45  
 Arg Pro Pro His Leu Tyr Ala Val Ala Asn Ala Ala Tyr Lys Ala Met  
 50 55 60  
 Lys His Arg Ser Arg Asp Thr Cys Ile Val Ile Ser Gly Glu Ser Gly

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Leu Leu Lys Ser Thr Cys Val Leu Glu Ala Phe Gly Asn Ala Arg Thr
      115          120          125
Asn Arg Asn His Asn Ser Ser Arg Phe Gly Lys Tyr Met Asp Ile Asn
      130          135          140
Phe Asp Phe Lys Gly Asp Pro Ile Gly Gly His Ile His Ser Tyr Leu
145          150          155          160
Leu Glu Lys Ser Arg Val Leu Lys Gln His Val Gly Glu Arg Asn Phe
      165          170          175
His Ala Phe Tyr Gln Leu Leu Arg Gly Ser Glu Asp Lys Gln Leu His
      180          185          190
Glu Leu His Leu Glu Arg Asn Pro Ala Val Tyr Asn Phe Thr His Gln
      195          200          205
Gly Ala Gly Leu Asn Met Thr Val His Ser Ala Leu Asp Ser Asp Glu
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Gln Ser His Gln Ala Val Thr Glu Ala Met Arg Val Ile Gly Phe Ser
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&lt;210&gt; 5133

&lt;211&gt; 581

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5133

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&lt;210&gt; 5134

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 <213> Homo sapiens

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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5136

&lt;211&gt; 341

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5136

Xaa Cys Glu Arg Leu Pro His Ala Pro Pro Pro Leu Arg Thr Met Phe  
 1 5 10 15  
 Pro Ser Arg Arg Lys Ala Ala Gln Leu Pro Trp Glu Asp Gly Arg Ser  
 20 25 30  
 Gly Leu Leu Ser Gly Gly Leu Pro Arg Lys Cys Ser Val Phe His Leu  
 35 40 45  
 Phe Val Ala Cys Leu Ser Leu Gly Phe Phe Ser Leu Leu Trp Leu Gln  
 50 55 60  
 Leu Ser Cys Ser Gly Asp Val Ala Arg Ala Val Arg Gly Gln Gly Gln  
 65 70 75 80  
 Glu Thr Ser Gly Pro Pro Arg Ala Cys Pro Pro Glu Pro Pro Pro Glu

85 90 95  
 His Trp Glu Glu Asp Ala Ser Trp Gly Pro His Arg Leu Ala Val Leu  
 100 105 110  
 Val Pro Phe Arg Glu Arg Phe Glu Glu Leu Leu Val Phe Val Pro His  
 115 120 125  
 Met Arg Arg Phe Leu Ser Arg Lys Lys Ile Arg His His Ile Tyr Val  
 130 135 140  
 Leu Asn Gln Val Asp His Phe Arg Phe Asn Arg Ala Ala Leu Ile Asn  
 145 150 155 160  
 Val Gly Phe Leu Glu Ser Ser Asn Ser Thr Asp Tyr Ile Ala Met His  
 165 170 175  
 Asp Val Asp Leu Leu Pro Leu Asn Glu Glu Leu Asp Tyr Gly Phe Pro  
 180 185 190  
 Glu Ala Gly Pro Phe His Val Ala Ser Pro Glu Leu His Pro Leu Tyr  
 195 200 205  
 His Tyr Lys Thr Tyr Val Gly Gly Ile Leu Leu Leu Ser Lys Gln His  
 210 215 220  
 Tyr Arg Leu Cys Asn Gly Met Ser Asn Arg Phe Trp Gly Trp Gly Arg  
 225 230 235 240  
 Glu Asp Asp Glu Phe Tyr Arg Arg Ile Lys Gly Ala Gly Leu Gln Leu  
 245 250 255  
 Phe Arg Pro Ser Gly Ile Thr Thr Gly Tyr Lys Thr Phe Arg His Leu  
 260 265 270  
 His Asp Pro Ala Trp Arg Lys Arg Asp Gln Lys Arg Ile Ala Ala Gln  
 275 280 285  
 Lys Gln Glu Gln Phe Lys Val Asp Arg Glu Gly Gly Leu Asn Thr Val  
 290 295 300  
 Lys Tyr His Val Ala Ser Arg Thr Ala Leu Ser Val Gly Gly Ala Pro  
 305 310 315 320  
 Cys Thr Val Leu Asn Ile Met Leu Asp Cys Asp Lys Thr Ala Thr Pro  
 325 330 335  
 Trp Cys Thr Phe Ser  
 340

&lt;210&gt; 5137

&lt;211&gt; 3090

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5137

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 3060  
 cacagggtgc atcacccac tcatcangta  
 3090

&lt;210&gt; 5138

&lt;211&gt; 371

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5138

Met Glu Leu Glu Leu Asp Ala Gly Asp Gln Asp Leu Leu Ala Phe Leu  
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 Leu Glu Glu Ser Gly Asp Leu Gly Thr Ala Pro Asp Glu Ala Val Arg  
 20 25 30  
 Ala Pro Leu Asp Trp Ala Leu Pro Leu Ser Glu Val Pro Ser Asp Trp  
 35 40 45  
 Glu Val Asp Asp Leu Leu Cys Ser Leu Leu Ser Pro Pro Ala Ser Leu  
 50 55 60  
 Asn Ile Leu Ser Ser Ser Asn Pro Cys Leu Val His His Asp His Thr  
 65 70 75 80  
 Tyr Ser Leu Pro Arg Glu Thr Val Ser Met Asp Leu Glu Ser Glu Ser



[illegible]

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<210> 5139
<211> 1968
<212> DNA
<213> Homo sapiens
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120
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300
..

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gaaatagaag aaaaaatcaa taaaataaga tggctcccc agcagaatgc agcttacttt  
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1860  
caggctcagg cggcccccact caccacagc atccgcccgc accccttcgg gtgtgagcgc  
1920

tcaataaaaa caacacacta taaagtgttt ttaaatccaa aaaaaaaaa  
1968

<210> 5140

<211> 443

<212> PRT

<213> Homo sapiens

<400> 5140

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Met Glu Glu Asp Ile Asp Thr Arg Lys Ile Asn Asn Ser Phe Leu Arg
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Asp His Ser Tyr Ala Thr Glu Ala Asp Ile Ile Ser Thr Val Glu Phe
 20          25          30
Asn His Thr Gly Glu Leu Leu Ala Thr Gly Asp Lys Gly Gly Arg Val
 35          40          45
Val Ile Phe Gln Arg Glu Gln Glu Ser Lys Asn Gln Val His Arg Arg
 50          55          60
Gly Glu Tyr Asn Val Tyr Ser Thr Phe Gln Ser His Glu Pro Glu Phe
 65          70          75          80
Asp Tyr Leu Lys Ser Leu Glu Ile Glu Glu Lys Ile Asn Lys Ile Arg
 85          90          95
Trp Leu Pro Gln Gln Asn Ala Ala Tyr Phe Leu Leu Ser Thr Asn Asp
100          105          110
Lys Thr Val Lys Leu Trp Lys Val Ser Glu Arg Asp Lys Arg Pro Glu
115          120          125
Gly Tyr Asn Leu Lys Asp Glu Glu Gly Arg Leu Arg Asp Pro Ala Thr
130          135          140
Ile Thr Thr Leu Arg Val Pro Val Leu Arg Pro Met Asp Leu Met Val
145          150          155          160
Glu Ala Thr Pro Arg Arg Val Phe Ala Asn Ala His Thr Tyr His Ile
165          170          175
Asn Ser Ile Ser Val Asn Ser Asp Tyr Glu Thr Tyr Met Ser Ala Asp
180          185          190
Asp Leu Arg Ile Asn Leu Trp Asn Phe Glu Ile Thr Asn Gln Ser Phe
195          200          205
Asn Ile Val Asp Ile Lys Pro Ala Asn Met Glu Glu Leu Thr Glu Val
210          215          220
Ile Thr Ala Ala Glu Phe His Pro His His Cys Asn Thr Phe Val Tyr
225          230          235          240
Ser Ser Ser Lys Gly Thr Ile Arg Leu Cys Asp Met Arg Ala Ser Ala
245          250          255
Leu Cys Asp Arg His Thr Lys Phe Phe Glu Glu Pro Glu Asp Pro Ser
260          265          270
Asn Arg Ser Phe Phe Ser Glu Ile Ile Ser Ser Ile Ser Asp Val Lys
275          280          285
Phe Ser His Ser Gly Arg Tyr Ile Met Thr Arg Asp Tyr Leu Thr Val
290          295          300
Lys Val Trp Asp Leu Asn Met Glu Ser Arg Pro Val Glu Thr His Gln
305          310          315          320
Val His Asp Tyr Leu Arg Ser Lys Leu Cys Ser Leu Tyr Glu Asn Asp
325          330          335
Cys Ile Phe Asp Lys Phe Glu Cys Val Trp Asn Gly Ser Asp Ser Val
340          345          350
Ile Met Thr Gly Ser Tyr Asn Asn Phe Phe Arg Met Phe Asp Arg Asp

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355	360	365
Thr Lys Arg Asp Val	Thr Leu Glu Ala Ser Arg	Glu Asn Ser Lys Pro
370	375	380
Arg Ala Ile Leu Lys	Pro Arg Lys Val Cys Val	Gly Gly Lys Arg Arg
385	390	395
Lys Asp Glu Ile Ser	Val Asp Ser Leu Asp Phe	Ser Lys Lys Ile Leu
405	410	415
His Thr Ala Trp His	Pro Val Asp Asn Val Ile	Ala Val Ala Ala Thr
420	425	430
Asn Asn Leu Tyr Ile	Phe Gln Asp Lys Ile Asn	
435	440	

&lt;210&gt; 5141

&lt;211&gt; 928

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5141

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60
cagatggacg agggcgccgg cgtggtggtg taccaggacg actactgtc cggtcgggtg
120
atgtcggagc ggggtgtcggg cctggcgggc tccatctacc gcgagttcga gcgcctcatc
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240
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928

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&lt;210&gt; 5142

&lt;211&gt; 227

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5142

```

Met Ser Glu Arg Val Ser Gly Leu Ala Gly Ser Ile Tyr Arg Glu Phe
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Glu Arg Leu Ile His Cys Tyr Asp Glu Glu Val Val Lys Glu Leu Met
 20             25             30
Pro Leu Val Val Asn Val Leu Glu Asn Leu Asp Ser Val Leu Ser Glu
 35             40             45
Asn Gln Glu His Glu Val Glu Leu Glu Leu Leu Arg Glu Asp Asn Glu
 50             55             60
Gln Leu Leu Thr Gln Tyr Glu Arg Glu Lys Ala Leu Arg Arg Gln Ala
 65             70             75             80
Glu Glu Lys Phe Ile Glu Phe Glu Asp Ala Leu Glu Gln Glu Lys Lys
 85             90             95
Glu Leu Gln Ile Gln Val Glu His Tyr Glu Phe Gln Thr Arg Gln Leu
100            105            110
Glu Leu Lys Ala Lys Asn Tyr Ala Asp Gln Ile Ser Arg Leu Glu Glu
115            120            125
Arg Glu Ser Glu Met Lys Lys Glu Tyr Asn Ala Leu His Gln Arg His
130            135            140
Thr Glu Met Ile Gln Thr Tyr Val Glu His Ile Glu Arg Ser Lys Met
145            150            155            160
Gln Gln Val Gly Gly Asn Ser Gln Thr Glu Ser Ser Leu Pro Gly Arg
165            170            175
Ser Arg Lys Glu Arg Pro Thr Ser Leu Asn Val Phe Pro Leu Ala Asp
180            185            190
Gly Thr Val Arg Ala Gln Ile Gly Gly Lys Leu Val Pro Ala Gly Asp
195            200            205
His Trp His Leu Ser Asp Leu Gly Gln Leu Gln Ser Ser Ser Ser Tyr
210            215            220
Gln Val Leu
225

```

&lt;210&gt; 5143

&lt;211&gt; 1666

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5143

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120
cgagaagact ttcgggtgcg ctgcacctcg aagcgggctg tgaccgaaat gctacaactg
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240
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300
caagcatggc aggaagcttc agataattgt tttatggatt ctgacatcaa agtacttgaa
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420

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 1666

<210> 5144

<211> 218

<212> PRT

<213> Homo sapiens

<400> 5144

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Phe	Glu	Ser	Ala	Val	Gln	Glu	Asn	Ile	Ser	Ile	Asn	Gly	Gln	Ala	Trp
		20				25					30				
Gln	Glu	Ala	Ser	Asp	Asn	Cys	Phe	Met	Asp	Ser	Asp	Ile	Lys	Val	Leu

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Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys
      50          55          60
Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala
65          70          75          80
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp
      85          90          95
Leu Lys Tyr Asp Pro Asp Pro Ala Pro His Met Glu Asn Leu Lys Cys
      100          105          110
Arg Gly Glu Thr Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu
      115          120          125
Pro Ala Leu Ile Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met
      130          135          140
Gln Pro Val Ile His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser
145          150          155          160
Cys His Arg Lys Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile
      165          170          175
Glu Thr Thr Pro Thr Glu Thr Ala Ser Arg Lys Thr Ser Asp Met Val
      180          185          190
Leu Lys Arg Lys Gln Thr Lys Asp Cys Pro Gln Arg Lys Trp Tyr Pro
      195          200          205
Leu Arg Pro Lys Lys Ile Asn Leu Asp Thr
      210          215

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&lt;210&gt; 5145

&lt;211&gt; 1885

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5145

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720

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 1800  
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 1860  
 tctgctgaaa aaaaaaaaaa aaaaa  
 1885

&lt;210&gt; 5146

&lt;211&gt; 312

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5146

Pro Ala Thr Ser Glu Lys Glu Ser Ile Leu Leu Phe Pro Asp Leu Arg  
 1 5 10 15  
 Cys Ala Leu Ala Gly His Asn Asp Leu Val Glu Ile His Leu Ser Gly  
 20 25 30  
 Arg Leu Gly Val Cys Thr Gly Leu Ala Cys Ala Tyr His Leu Leu Cys  
 35 40 45  
 Thr Pro Pro Thr Pro Cys Ile Pro Thr Pro Gly Leu Val Ala Pro Ala



50                      55                      60  
 Leu Gly Lys Val Ser Pro Cys Ala Cys Thr Arg Arg Gln Thr Glu Lys  
 65                      70                      75                      80  
 Ala Ala Gly Gly Leu Cys Cys Ser Ala Arg Gly Ser Ala Leu Pro Pro  
                     85                      90                      95  
 Ser Phe Leu Leu Leu Ile Ala Pro Val Cys Gly Ala Tyr Thr Pro Thr  
                     100                      105                      110  
 Ser Cys Asn Lys Ile Val Ala Ser Ala Lys Lys Pro Gly Ile Arg Thr  
                     115                      120                      125  
 Gly Ile Gln Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly  
                     130                      135                      140  
 Asn Pro Gly Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala  
 145                      150                      155                      160  
 Arg Gly Ile Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile  
                     165                      170                      175  
 Lys Asp Gln Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro  
                     180                      185                      190  
 Met Gly Gly Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu  
                     195                      200                      205  
 Glu Pro Tyr Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly  
                     210                      215                      220  
 Tyr Tyr Tyr Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu  
 225                      230                      235                      240  
 Ser Ile Val Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe  
                     245                      250                      255  
 Cys Asp Thr Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met  
                     260                      265                      270  
 Val Leu Gln Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro  
                     275                      280                      285  
 Lys Lys Gly His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser  
                     290                      295                      300  
 Gly Phe Leu Ile Phe Pro Ser Ala  
 305                      310

&lt;210&gt; 5147

&lt;211&gt; 2943

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5147

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 240  
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 300  
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 360  
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 420

gaacctcagc ttgctagtct ttgtctagat acaatagaca aaagcacaat ggatgcaata  
480  
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 aaa  
 2943

&lt;210&gt; 5148

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5148

Ala Arg Leu Phe Asp Glu Pro Gln Leu Ala Ser Leu Cys Leu Asp Thr  
 1 5 10 15  
 Ile Asp Lys Ser Thr Met Asp Ala Ile Ser Ala Glu Gly Phe Thr Asp  
 20 25 30  
 Ile Asp Ile Asp Thr Leu Cys Ala Val Leu Glu Arg Asp Thr Leu Ser  
 35 40 45  
 Ile Arg Glu Ser Arg Leu Phe Gly Ala Val Val Arg Trp Ala Glu Ala  
 50 55 60  
 Glu Cys Gln Arg Gln Gln Leu Pro Val Thr Phe Gly Asn Lys Gln Lys  
 65 70 75 80  
 Val Leu Gly Lys Ala Leu Ser Leu Ile Arg Phe Pro Leu Met Thr Ile  
 85 90 95  
 Glu Glu Phe Ala Ala Gly Pro Ala Gln Ser Gly Ile Leu Ser Asp Arg  
 100 105 110  
 Glu Val Val Asn Leu Phe Leu His Phe Thr Val Asn Pro Lys Pro Arg

115	120	125
Val Glu Tyr Ile Asp Arg	Pro Arg Cys Cys Leu Arg	Gly Lys Glu Cys
130	135	140
Cys Ile Asn Arg Phe Gln	Gln Val Glu Ser Arg Trp	Gly Tyr Ser Gly
145	150	155
Thr Ser Asp Arg Ile Arg	Phe Thr Val Asn Arg Arg	Ile Ser Ile Val
165	170	175
Gly Phe Gly Leu Tyr Gly	Ser Ile His Gly Pro Thr	Asp Tyr Gln Val
180	185	190
Asn Ile Gln Ile Ile Glu	Tyr Glu Lys Lys Gln Thr	Leu Gly Gln Asn
195	200	205
Asp Thr Gly Phe Ser Cys	Asp Gly Thr Ala Asn Thr	Phe Arg Val Met
210	215	220
Phe Lys Glu Pro Ile Glu	Ile Leu Pro Asn Val Cys	Tyr Thr Ala Cys
225	230	235
Ala Thr Leu Lys Gly Pro	Asp Ser His Tyr Gly Thr	Lys Gly Leu Lys
245	250	255
Lys Val Val His Glu Thr	Pro Ala Ala Ser Lys Thr	Val Phe Phe Phe
260	265	270
Phe Ser Ser Pro Gly Asn	Asn Asn Gly Thr Ser Ile	Glu Asp Gly Gln
275	280	285
Ile Pro Glu Ile Ile Phe	Tyr Thr	
290	295	

<210> 5149  
 <211> 533  
 <212> DNA  
 <213> Homo sapiens

<400> 5149  
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 180  
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 240  
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 300  
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 360  
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 420  
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 480  
 gctgcactcc tgtaacaaac attattttcc atttcattgt attgtgtttt gca  
 533

<210> 5150  
 <211> 154  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 5150

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 Lys Asp Arg Cys Val Arg Leu Ala Leu Val His Asp Met Ala Glu Cys  
 20 25 30  
 Ile Val Gly Asp Ile Ala Pro Ala Asp Asn Ile Pro Lys Glu Glu Lys  
 35 40 45  
 His Arg Arg Glu Glu Glu Ala Met Lys Gln Ile Thr Gln Leu Leu Pro  
 50 55 60  
 Glu Asp Leu Arg Lys Glu Leu Tyr Glu Leu Trp Glu Glu Tyr Glu Thr  
 65 70 75 80  
 Gln Ser Ser Ala Glu Ala Lys Phe Val Lys Gln Leu Asp Gln Cys Glu  
 85 90 95  
 Met Ile Leu Gln Ala Ser Glu Tyr Glu Asp Leu Glu His Lys Pro Gly  
 100 105 110  
 Arg Leu Gln Asp Phe Tyr Asp Ser Thr Ala Gly Lys Phe Asn His Pro  
 115 120 125  
 Glu Ile Val Gln Leu Val Ser Glu Leu Glu Ala Glu Arg Ser Thr Asn  
 130 135 140  
 Ile Ala Ala Ala Ala Ser Glu Pro His Ser  
 145 150

&lt;210&gt; 5151

&lt;211&gt; 2273

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5151

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 120  
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 180  
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 240  
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1560  
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1680  
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1740  
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1980  
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2100  
aaagccagta acttcgctct gttagagggt gaggattttc ctatgggttc cccatttcc  
2160  
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2220  
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa  
2273

&lt;210&gt; 5152

&lt;211&gt; 324

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5152

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Met Phe Ser Ser Thr Ser Thr Pro Ser Ser Phe Thr Ala Phe Gln Thr
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Thr Met Arg Ser Ser Ile Pro His Trp Arg Ile Ser Arg Met Cys Leu
 20           25           30
Lys Pro Thr Phe Thr Lys Gln Gln Ile Ala Asn Leu Asp Lys Gln Ala
 35           40           45
Lys Leu Ser Arg Ala Tyr Asp Gly Thr Thr Tyr Leu Pro Gly Ile Val
 50           55           60
Gly Leu Asn Asn Ile Lys Ala Asn Asp Tyr Ala Asn Ala Val Leu Gln
 65           70           75           80
Ala Leu Ser Asn Val Pro Pro Leu Arg Asn Tyr Phe Leu Glu Glu Asp
 85           90           95
Asn Tyr Lys Asn Ile Lys Arg Pro Pro Gly Asp Ile Met Phe Leu Leu
100          105          110
Val Gln Arg Phe Gly Glu Leu Met Arg Lys Leu Trp Asn Pro Arg Asn
115          120          125
Phe Lys Ala His Val Ser Pro His Glu Met Leu Gln Ala Val Val Leu
130          135          140
Cys Ser Lys Lys Thr Phe Gln Ile Thr Lys Gln Gly Asp Gly Val Asp
145          150          155          160
Phe Leu Ser Trp Phe Leu Asn Ala Leu His Ser Ala Leu Gly Gly Thr
165          170          175
Lys Lys Lys Lys Lys Thr Ile Val Thr Asp Val Phe Gln Gly Ser Met
180          185          190
Arg Ile Phe Thr Lys Lys Leu Pro His Pro Asp Leu Pro Ala Glu Glu
195          200          205
Lys Glu Gln Leu Leu His Asn Asp Glu Tyr Gln Glu Thr Met Val Glu
210          215          220
Ser Thr Phe Met Tyr Leu Thr Leu Asp Leu Pro Thr Ala Pro Leu Tyr
225          230          235          240
Lys Asp Glu Lys Glu Gln Leu Ile Ile Pro Gln Val Pro Leu Phe Asn
245          250          255
Ile Leu Ala Lys Phe Asn Gly Ile Thr Glu Lys Glu Tyr Lys Thr Tyr
260          265          270
Lys Glu Asn Phe Leu Lys Arg Phe Gln Leu Thr Lys Leu Pro Pro Tyr
275          280          285
Leu Ile Phe Cys Ile Lys Ile Phe Thr Lys Asn Asn Phe Phe Val Glu
290          295          300
Lys Asn Pro Thr Ser Cys Gln Phe Pro Tyr Tyr Lys Cys Gly Ser Glu
305          310          315          320
Arg Ile Leu Val

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&lt;210&gt; 5153

&lt;211&gt; 640

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5153

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<212> PRT

<213> Homo sapiens

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<213> Homo sapiens

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&lt;210&gt; 5160

&lt;211&gt; 849

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5160

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Ser</															

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    500                                      505                                      510  
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    515                                      520                                      525  
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&lt;210&gt; 5161

&lt;211&gt; 1645

&lt;212&gt; DNA

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<210> 5162  
<211> 207  
<212> PRT  
<213> Homo sapiens

<400> 5162  
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Leu Val Gln Ala Asn Thr Pro Ala Ser Leu Val Gly Leu Arg Phe Gly  
50 55 60  
Asp Gln Leu Leu Gln Ile Asp Gly Arg Asp Cys Ala Gly Trp Ser Ser  
65 70 75 80  
His Lys Ala His Gln Val Val Lys Lys Ala Ser Gly Asp Lys Ile Val  
85 90 95  
Val Val Val Arg Asp Arg Pro Phe Gln Arg Thr Val Thr Met His Lys  
100 105 110  
Asp Ser Met Gly His Val Gly Phe Val Ile Lys Lys Gly Lys Ile Val  
115 120 125  
Ser Leu Val Lys Gly Ser Ser Ala Ala Cys Asn Gly Leu Leu Thr Asn  
130 135 140  
His Tyr Val Cys Glu Val Asp Gly Gln Asn Val Ile Gly Leu Lys Asp  
145 150 155 160  
Lys Lys Ile Met Glu Ile Leu Ala Thr Ala Gly Asn Val Val Thr Leu  
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Thr Ile Ile Pro Ser Val Ile Tyr Glu His Met Val Lys Lys Leu Pro  
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<212> DNA  
<213> Homo sapiens

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<210> 5164

<211> 213

<212> PRT

<213> Homo sapiens

<400> 5164

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		20					25					30			
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Gly	Glu	Pro	Gln	Gly	Tyr	Gly	Val	Met	Glu	Tyr	Lys	Ala	Gly	Gly	Cys
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65				70				75						80	
Val	Asp	Arg	Asp	Gly	Gln	Val	Tyr	Gln	Gly	Ser	Phe	His	Asp	Asn	Lys
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Trp Ile Asn Gly His Pro Ala Glu Gln Ala Thr Arg Ile Val Ile Leu		160
	165	170
Gly Pro Glu Val Met Glu Val Ala Gln Gly Ser Pro Phe Ser Val Asn		175
	180	185
Val Gln Leu Leu Gln Asp His Gly Glu Ile Ala Lys Ser Lys His Leu		190
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Gln Gly Glu Met Thr		205
210		

&lt;210&gt; 5165

&lt;211&gt; 2370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5165

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&lt;210&gt; 5166

&lt;211&gt; 521

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5166

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Thr	His	Leu	Ser	Leu	Gln	Asp	Arg	Ser	Glu	Met	Gln	Leu	Gln	Ser	Glu

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 Ala Asp Arg Arg Ser Leu Pro Gly Thr Trp Thr Arg Ser Ser Pro Glu  
 35 40 45  
 His Thr Thr Ile Leu Arg Gly Gly Val Arg Arg Cys Leu Gln Gln Gln  
 50 55 60  
 Cys Glu Gln Thr Val Arg Ile Leu His Ala Lys Val Ala Gln Lys Ser  
 65 70 75 80  
 Tyr Gly Asn Glu Lys Arg Phe Phe Cys Pro Pro Cys Val Tyr Leu  
 85 90 95  
 Ser Gly Pro Gly Trp Arg Val Lys Pro Gly Gln Asp Gln Ala His Gln  
 100 105 110  
 Ala Gly Glu Thr Gly Pro Thr Val Cys Gly Tyr Met Gly Leu Asp Ser  
 115 120 125  
 Ala Ser Gly Ser Ala Thr Glu Thr Gln Lys Leu Asn Phe Glu Gln Gln  
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 Pro Asp Ser Arg Glu Phe Gly Cys Ala Lys Thr Leu Tyr Ile Ser Asp  
 145 150 155 160  
 Ala Asp Lys Arg Lys His Phe Arg Leu Val Leu Arg Leu Val Leu Arg  
 165 170 175  
 Gly Gly Arg Glu Leu Gly Thr Phe His Ser Arg Leu Ile Lys Val Ile  
 180 185 190  
 Ser Lys Pro Ser Gln Lys Lys Gln Ser Leu Lys Asn Thr Asp Leu Cys  
 195 200 205  
 Ile Ser Ser Gly Ser Lys Val Ser Leu Phe Asn Arg Leu Arg Ser Gln  
 210 215 220  
 Thr Val Ser Thr Arg Tyr Leu Ser Val Glu Asp Gly Ala Phe Val Ala  
 225 230 235 240  
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 245 250 255  
 Ser Ala Gln Gly Asp Phe Pro Pro Arg Glu Gly Tyr Val Arg Tyr Gly  
 260 265 270  
 Ser Leu Val Gln Leu Val Cys Thr Val Thr Gly Ile Thr Leu Pro Pro  
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 Glu Pro Ile Ser Gln Leu His Lys Cys Ala Phe Gln Phe Pro Gly Ser  
 305 310 315 320  
 Pro Pro Gly Gly Gly Gly Thr Tyr Leu Cys Leu Ala Thr Glu Lys Val  
 325 330 335  
 Val Gln Phe Gln Ala Ser Pro Cys Pro Lys Glu Ala Asn Arg Ala Leu  
 340 345 350  
 Leu Asn Asp Ser Ser Cys Trp Thr Ile Ile Gly Thr Glu Ser Val Glu  
 355 360 365  
 Phe Ser Phe Ser Thr Ser Leu Ala Cys Thr Leu Glu Pro Val Thr Pro  
 370 375 380  
 Val Pro Leu Ile Ser Thr Leu Glu Leu Ser Gly Gly Gly Asp Val Ala  
 385 390 395 400  
 Thr Leu Glu Leu His Gly Glu Asn Phe His Ala Gly Leu Lys Val Trp  
 405 410 415  
 Phe Gly Asp Val Glu Ala Glu Thr Met Tyr Arg Tyr Gly Val Xaa Ser  
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 Pro Arg Ser Leu Val Cys Val Val Pro Asp Val Ala Ala Phe Cys Ser  
 435 440 445  
 Asp Trp Arg Trp Leu Arg Ala Pro Ile Thr Ile Pro Met Ser Leu Val

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Arg Ala Asp Gly Leu Phe Tyr Pro Ser Ala Phe Ser Phe Thr Tyr Thr
465          470          475          480
Pro Glu Tyr Ser Val Arg Pro Gly His Pro Gly Val Pro Glu Pro Ala
      485          490          495
Thr Asp Ala Asp Ala Leu Leu Glu Ser Ile His Gln Glu Phe Thr Arg
      500          505          510
Thr Asn Phe His Leu Phe Ile Gln Thr
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<210> 5167  
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 <212> DNA  
 <213> Homo sapiens

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<210> 5168  
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 <212> PRT  
 <213> Homo sapiens

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<400> 5168
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      20           25           30
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      35           40           45
Gly Arg Ser Glu Lys Arg Thr Ala Ile Cys Phe Ser Thr Gly Ala Gln
      50           55           60
Asp Ser Ser Gln Arg Ala Pro Phe Arg Leu Gln Asn Pro Gly Gln Leu
      65           70           75           80
Leu Gln Thr Ser Val Arg Asn Leu Val Pro Ser Ile Leu His Thr Ser
      85           90           95
Tyr His Ala Ile Phe Asn Pro Arg Thr Trp Val Leu Leu Cys Pro Cys
      100          105          110
Asp Ile Trp Gly Thr Gln Gly Pro Glu Lys Gly Arg Lys Ile Thr His
      115          120          125
Ala Gly Thr Leu Ser Pro Gln Val Lys Leu Arg Thr Gly Asn Gly Lys
      130          135          140
Gln Gly Gly Ser Thr Glu Ala Gly Asn Ser Gly Val Ile Ala Trp Leu
      145          150          155          160
Ser Leu Glu Cys Thr Pro Ser Thr Ser Thr Gln Ser Ser Pro Gln Leu
      165          170          175
Thr Leu Pro Ser Ser Ala Ser Ser Ile Ser Ser Arg Glu Thr Ile Leu
      180          185          190
Ile Ala Ser Pro Phe Pro Thr
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&lt;210&gt; 5169

&lt;211&gt; 609

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5169

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 <212> PRT  
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 35 40 45  
 Leu Leu Leu Phe Thr Thr Ala Gly Ile Tyr Val Asp Gly Ala Gly Arg  
 50 55 60  
 Lys Ser Arg Gly His Glu Leu Leu Trp Pro Ala Ala Pro Met Gly Trp  
 65 70 75 80  
 Gly Tyr Ala Ala Pro Tyr Leu Thr Val Phe Ser Glu Asn Ser Ile Asp  
 85 90 95  
 Val Phe Asp Val Arg Arg Ala Glu Trp Val Gln Thr Val Pro Leu Lys  
 100 105 110  
 Lys Val Arg Pro Leu Asn Pro Glu Gly Ser Leu Phe Leu Tyr Gly Thr  
 115 120 125  
 Glu Lys Val Arg Leu Thr Tyr Leu Arg Asn Gln Leu Ala Glu Lys Asp  
 130 135 140  
 Glu Phe Asp Ile Pro Asp Leu Thr Asp Asn Ser Arg Arg Gln Leu Phe  
 145 150 155 160  
 Leu Thr Lys Ser Lys Arg Arg Phe Phe Phe Arg Val Ser Glu Glu Gln  
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<210> 5171  
 <211> 2060  
 <212> DNA  
 <213> Homo sapiens

<400> 5171  
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<210> 5172  
<211> 104  
<212> PRT  
<213> Homo sapiens

<400> 5172  
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Gln Gly Ser Ile Lys Asp His Thr Ala Gly Leu Arg Leu Thr Ala Leu  
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Ser Pro Glu His Gln Ser Pro Ala Glu Ser Gly Asp Asn Thr Ser Ser  
50 55 60  
Leu Gln Arg Gly Thr Ser Pro Pro Ala Ala Thr Ser Leu Arg Leu Leu  
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<211> 557  
<212> DNA  
<213> Homo sapiens

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420  
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<213> Homo sapiens

<400> 5174

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 20           25           30
Glu Thr Lys Arg Ser Pro Leu Gly Thr Val Leu Ser Pro Gly Ala Glu
 35           40           45
Thr Asp Arg Gly Ser Leu Leu Gly Pro Pro Glu Lys Arg Cys Pro Asp
 50           55           60
Ile Trp Cys Ser Gln Ala Val Ser Pro Ala Gly Leu Cys Phe Pro Asp
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Arg Gln Thr Ser Pro Ser Leu Ser Leu Ser Gly Lys Met
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<212> DNA

<213> Homo sapiens

<400> 5175

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120
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<210> 5176

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<212> PRT

<213> Homo sapiens

<400> 5176

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 20           25           30
Ser Cys Leu His Val Ser Arg Glu Gly Cys Pro Thr Pro Gly Arg Ala
 35           40           45
Ala Thr Pro Thr Pro Ser Pro Gly Thr Ala Ser Gln Arg Ser Leu Pro
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Gln Ala Cys Ser Glu Gly Pro Xaa Xaa Xaa
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<210> 5177

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5177

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540
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&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5178

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Lys Glu Glu Gly Glu Leu Glu Asp Gly Glu Ile Ser Asp Asp Asn
      20             25             30
Asn Ser Gln Ile Arg Ser Arg Ser Ser Ser Ser Ser Gly Gly Gly
      35             40             45
Leu Leu Pro Tyr Pro Arg Arg Arg Pro Pro His Ser Ala Arg Gly Gly
      50             55             60
Gly Ser Gly Gly Gly Gly Gly Ser Ser Ser Ser Ser Ser Ser Ser Gln
      65             70             75             80
Gln Gln Leu Arg Asn Phe Ser Arg Ser Arg His Ala
      85             90

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&lt;210&gt; 5179

&lt;211&gt; 1527

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5179

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60

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240  
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300  
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&lt;210&gt; 5180

&lt;211&gt; 444

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5180

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 35 40 45  
 His Thr Glu Gly Lys Arg Tyr Phe Thr Trp Asp Lys Asn Arg Phe Pro  
 50 55 60  
 Asn Pro Lys Arg Met Gln Glu Leu Leu Arg Asn Lys Lys Arg Lys Leu  
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 Val Val Ile Ser Asp Pro His Ile Lys Ile Glu Pro Asp Tyr Ser Val  
 85 90 95  
 Tyr Val Lys Ala Lys Asp Gln Gly Phe Phe Val Lys Asn Gln Glu Gly  
 100 105 110  
 Glu Asp Phe Glu Gly Val Cys Trp Pro Gly Leu Ser Ser Tyr Leu Asp  
 115 120 125  
 Phe Thr Asn Pro Lys Val Arg Glu Trp Tyr Ser Ser Leu Phe Ala Phe  
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 Pro Val Tyr Gln Gly Ser Thr Asp Ile Leu Phe Leu Trp Asn Asp Met  
 145 150 155 160  
 Asn Glu Pro Ser Val Phe Arg Gly Pro Glu Gln Thr Met Gln Lys Asn  
 165 170 175  
 Ala Ile His His Gly Asn Trp Glu His Arg Glu Leu His Asn Ile Tyr  
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 Gly Phe Tyr His Gln Met Ala Thr Ala Glu Gly Leu Ile Lys Arg Ser  
 195 200 205  
 Lys Gly Lys Glu Arg Pro Phe Val Leu Thr Arg Ser Phe Phe Ala Gly  
 210 215 220  
 Ser Gln Lys Tyr Gly Ala Val Trp Thr Gly Asp Asn Thr Ala Glu Trp  
 225 230 235 240  
 Ser Asn Leu Lys Ile Ser Ile Pro Met Leu Leu Thr Leu Ser Ile Thr  
 245 250 255  
 Gly Ile Ser Phe Cys Gly Ala Asp Ile Gly Gly Phe Ile Gly Asn Pro  
 260 265 270  
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 Phe Phe Arg Gly His Ala Thr Met Asn Thr Lys Arg Arg Glu Pro Trp  
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 305 310 315 320  
 Arg Tyr Gly Leu Leu Pro Tyr Trp Tyr Ser Leu Phe Tyr His Ala His  
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 Val Ala Ser Gln Pro Val Met Arg Pro Leu Trp Val Glu Phe Pro Asp  
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 Glu Leu Lys Thr Phe Asp Met Glu Asp Glu Tyr Met Leu Gly Ser Ala  
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<211> 697

<212> PRT

<213> Homo sapiens

<400> 5182

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Lys	Ala	Leu	Gln	Pro	Pro	Cys	Asn	Leu	Leu	Met	Gln	Ser	Glu	Glu	Val
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Glu	Asp	Ser	Gly	Gly	Ala	Arg	Arg	Ser	Val	Ile	Gly	Ser	Gly	Pro	Gln
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Leu	Leu	Thr	His	Tyr	Asp	Asp	Ala	Arg	Thr	Met	Tyr	Gln	Val	Phe	
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Lys	Pro	Lys	Gln	Pro	Tyr	Gln	Trp	Leu	Ser	Tyr	Gln	Glu	Val	Ala	Asp
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			260						265						270											
Val	Cys	Phe	Thr	Ser	Gly	Thr	Thr	Gly	Asn	Pro	Lys	Gly	Ala	Met	Leu											
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Thr	His	Gly	Asn	Val	Val	Ala	Asp	Phe	Ser	Gly	Phe	Leu	Lys	Val	Thr											
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Pro	Leu	Ala	His	Met	Phe	Glu	Arg	Met	Val	Gln	Ser	Val	Val	Tyr	Cys											
			325						330						335											
His	Gly	Gly	Arg	Val	Gly	Phe	Phe	Gln	Gly	Asp	Ile	Arg	Leu	Leu	Ser											
			340						345						350											
Asp	Asp	Met	Lys	Ala	Leu	Cys	Pro	Thr	Ile	Phe	Pro	Val	Val	Pro	Arg											
			355						360						365											
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385						390						395						400								
Val	Arg	Ser	Gly	Ile	Ile	Arg	Asn	Asp	Ser	Ile	Trp	Asp	Glu	Leu	Phe											
			405						410						415											
Phe	Asn	Lys	Ile	Gln	Ala	Ser	Leu	Gly	Gly	Cys	Val	Arg	Met	Ile	Val											
			420						425						430											
Thr	Gly	Ala	Ala	Pro	Ala	Ser	Pro	Thr	Val	Leu	Gly	Phe	Leu	Arg	Ala											
			435						440						445											
Ala	Leu	Gly	Cys	Gln	Val	Tyr	Glu	Gly	Tyr	Gly	Gln	Thr	Glu	Cys	Thr											
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			485						490						495											
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			500						505						510											
Pro	Asn	Val	Phe	Lys	Gly	Tyr	Leu	Lys	Asp	Pro	Asp	Arg	Thr	Lys	Glu											
515						520						525														
Ala	Leu	Asp	Ser	Asp	Gly	Trp	Leu	His	Thr	Gly	Asp	Ile	Gly	Lys	Trp											
530						535						540														
Leu	Pro	Ala	Gly	Thr	Leu	Lys	Ile	Ile	Asp	Arg	Lys	Lys	His	Ile	Phe											
545						550						555						560								
Lys	Leu	Ala	Gln	Gly	Glu	Tyr	Val	Ala	Pro	Glu	Lys	Ile	Glu	Asn	Ile											

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<210> 5183  
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 <213> Homo sapiens

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<211> 395

<212> PRT

<213> Homo sapiens

<400> 5184

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 Ser Ile Glu Met Lys Phe Leu Thr Gly Tyr Glu Val Lys Val Met Glu  
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 Asp Glu Pro Phe Asp Phe Gly Thr Gln Ser Thr Thr Glu Lys Ile His  
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&lt;210&gt; 5185

&lt;211&gt; 1657

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5185

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&lt;210&gt; 5186

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 <212> PRT  
 <213> Homo sapiens

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 Gly Trp Ser Thr Val Val Arg Ser Gln Leu Thr Ala Thr Ser Ala Ser  
 50 55 60  
 Arg Phe Lys Arg Phe Ala Cys Leu Cys Leu Ser Tyr Val Pro Phe Arg  
 65 70 75 80  
 Lys Ile Leu Leu Gln Glu Lys Ile Trp Phe Gln Asp Val Ser Trp Thr  
 85 90 95  
 Gly Gly His Val Pro Arg Val Pro Arg Thr Gly Trp Val Tyr Arg Asn  
 100 105 110  
 Val Gln Arg Pro Glu Ser Val Ser Asp His Met Tyr Arg Met Ala Val  
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 Phe Val Lys Gln Leu Asp Gln Cys Glu Met Ile Leu Gln Ala Ser Glu  
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 Tyr Glu Asp Leu Glu His Lys Pro Gly Arg Leu Gln Asp Phe Tyr Asp  
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 <212> DNA  
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&lt;210&gt; 5188

&lt;211&gt; 489

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5188

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      35           40           45
Thr Asn Thr Arg Ser Asp Leu Gly Pro Cys Glu Lys Ile His Asp Glu
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Tyr Glu Arg Asp Phe Leu Arg Tyr Leu Gln Ser Leu Leu Ala Glu Val
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Glu Arg Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn
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Gln Gln Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Glu Glu Lys
      115          120          125
Ile Gln Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu
      130          135          140
Glu Leu Gly Ser Glu Gly Lys Val Glu Glu Ala Gln Gly Met Met Lys
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Leu Val Glu Gln Leu Lys Glu Glu Arg Glu Leu Leu Arg Ser Thr Thr
      165          170          175
Ser Thr Ile Glu Ser Phe Ala Ala Gln Glu Lys Gln Met Glu Val Cys
      180          185          190
Glu Val Cys Gly Ala Phe Leu Ile Val Gly Asp Ala Gln Ser Arg Val
      195          200          205
Asp Asp His Leu Met Gly Lys Gln His Met Gly Tyr Ala Lys Ile Lys
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Ala Thr Val Glu Glu Leu Lys Glu Lys Leu Arg Lys Arg Thr Glu Glu
      225          230          235          240
Pro Asp Arg Asp Glu Arg Leu Lys Lys Glu Lys Gln Glu Arg Glu Glu
      245          250          255
Arg Glu Lys Glu Arg Glu Arg Glu Glu Glu Arg Glu Arg Lys Arg
      260          265          270
Arg Arg Glu Glu Glu Glu Arg Glu Lys Glu Arg Ala Arg Asp Arg Glu
      275          280          285
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Asp Arg Arg Cys Ser Arg Ser Arg Asp His Lys Arg Ser Arg Ser Arg
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Glu Arg Arg Arg Ser Arg Ser Arg Asp Arg Arg Ser Arg Ser His
      325          330          335
Asp Arg Ser Glu Arg Lys His Arg Ser Arg Ser Arg Asp Arg Arg Arg
      340          345          350
Ser Lys Ser Arg Asp Arg Lys Ser Tyr Lys His Arg Ser Lys Ser Arg
      355          360          365
Asp Arg Glu Gln Asp Arg Lys Ser Lys Glu Lys Glu Lys Arg Gly Ser
      370          375          380
Asp Asp Lys Lys Ser Ser Val Lys Ser Gly Ser Arg Glu Lys Gln Ser
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<211> 1632
<212> DNA
<213> Homo sapiens
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<210> 5192  
 <211> 377  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Phe His Thr Gly Ala Gly Ile Ser Thr Ala Ser Gly Ile Pro Asp Phe  
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 Arg Gly Pro His Gly Val Trp Thr Met Glu Glu Arg Gly Leu Ala Pro  
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 Lys Phe Asp Thr Thr Phe Glu Ser Ala Arg Pro Thr Gln Thr His Met  
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 180 185 190  
 Cys Arg Gly Glu Leu Arg Asp Thr Ile Leu Asp Trp Glu Asp Ser Leu  
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 260 265 270  
 Tyr Val Asp Glu Val Met Thr Arg Leu Met Lys His Leu Gly Leu Glu  
 275 280 285  
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 305 310 315 320  
 Thr Arg Ile Asn Gly Ser Ile Pro Ala Gly Pro Lys Gln Glu Pro Cys  
 325 330 335  
 Ala Gln His Asn Gly Ser Glu Pro Ala Ser Pro Lys Arg Glu Arg Pro

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<210> 5193  
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 <213> Homo sapiens

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<210> 5194  
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 <212> PRT  
 <213> Homo sapiens

<400> 5194  
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 Gly Gly Leu Arg Glu Val Cys Leu Cys Gln Ala Cys Ala Ala Ser Gly  
 35 40 45  
 Gly Gly Ala Cys Pro Ala Ser Ser Ser Leu Val Ser Pro Val Pro Arg  
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5195

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964

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&lt;210&gt; 5196

&lt;211&gt; 267

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5196

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Leu Ala Cys Lys Val Ala Asp Lys Val Leu Glu Gly Gln Leu Leu Glu
20           25           30
Thr Ile Ser Gln Leu Tyr Leu Ser Leu Gly Thr Glu Arg Ala Tyr Lys
35           40           45
Ser Ala Leu Asp Tyr Thr Lys Arg Ser Leu Gly Ile Phe Ile Asp Leu
50           55           60
Gln Lys Lys Glu Lys Glu Ala His Ala Trp Leu Gln Ala Gly Lys Ile

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65          70          75          80
Tyr Tyr Ile Leu Arg Gln Ser Glu Leu Val Asp Leu Tyr Ile Gln Val
      85          90          95
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      100         105         110
Leu Phe Glu Ala Ala Gly Asp Ile Phe Phe Asp Gly Ala Trp Glu Arg
      115         120         125
Glu Lys Ala Val Ser Phe Tyr Arg Asp Arg Ala Leu Pro Leu Ala Val
      130         135         140
Thr Thr Gly Asn Arg Lys Ala Glu Leu Arg Leu Cys Asn Lys Leu Val
      145         150         155         160
Ala Leu Leu Ala Thr Leu Glu Glu Pro Gln Glu Gly Leu Glu Phe Ala
      165         170         175
His Met Ala Leu Ala Leu Ser Ile Thr Leu Gly Asp Arg Leu Asn Glu
      180         185         190
Arg Val Ala Tyr His Arg Leu Ala Ala Leu Gln His Arg Leu Gly His
      195         200         205
Gly Glu Leu Ala Glu His Phe Tyr Leu Lys Ala Leu Ser Leu Cys Asn
      210         215         220
Ser Pro Leu Glu Phe Asp Glu Glu Thr Leu Tyr Tyr Val Lys Val Tyr
      225         230         235         240
Leu Val Leu Gly Asp Ile Ile Phe Tyr Asp Leu Lys Asp Pro Phe Asp
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&lt;210&gt; 5197

&lt;211&gt; 1045

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5197

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660

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<210> 5198

<211> 283

<212> PRT

<213> Homo sapiens

<400> 5198

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			20						25				30		
Glu	Glu	Glu	Glu	Glu	Val	Val	Lys	Asp	Gly	Arg	Pro	Lys	Trp	Asn	Ser
			35						40				45		
Trp	Asp	Pro	Arg	Arg	Gln	Arg	Gln	Leu	Ser	Met	Ser	Ser	Ala	Asp	Ser
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Ala	Asp	Ala	Lys	Arg	Thr	Arg	Glu	Glu	Gly	Lys	Asp	Trp	Ala	Glu	Ala
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Val	Gly	Ala	Ser	Arg	Val	Val	Arg	Lys	Ala	Pro	Asp	Pro	Gln	Pro	Pro
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Pro	Arg	Lys	Leu	His	Gly	Trp	Ala	Pro	Gly	Pro	Asp	Tyr	Gln	Lys	Ser
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Ser	Met	Gly	Ser	Met	Phe	Arg	Gln	Gln	Ser	Ile	Glu	Asp	Lys	Glu	Asp
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Lys	Pro	Pro	Pro	Arg	Gln	Lys	Phe	Ile	Gln	Ser	Glu	Met	Ser	Glu	Ala
	130					135						140			
Val	Glu	Arg	Ala	Arg	Lys	Arg	Arg	Glu	Glu	Glu	Glu	Arg	Arg	Ala	Arg
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Glu	Glu	Arg	Leu	Ala	Ala	Cys	Ala	Ala	Lys	Leu	Lys	Gln	Leu	Asp	Gln
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Lys	Cys	Lys	Gln	Ala	Arg	Lys	Ala	Gly	Glu	Ala	Arg	Lys	Gln	Ala	Glu
			180					185					190		
Lys	Glu	Val	Pro	Trp	Ser	Pro	Ser	Ala	Glu	Lys	Ala	Ser	Pro	Gln	Glu
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	210					215						220			
Thr	Pro	Thr	Thr	Phe	Pro	Glu	Glu	Ala	Pro	Thr	Val	Ser	Pro	Ala	Val
225					230					235				240	
Ala	Gln	Ser	Asn	Ser	Ser	Glu	Glu	Glu	Ala	Arg	Glu	Ala	Gly	Ser	Pro
			245					250						255	
Ala	Gln	Glu	Phe	Lys	Tyr	Gln	Lys	Ser	Leu	Pro	Pro	Arg	Phe	Gln	Arg

260 265 270

Gln Gln Gln Gln Gln Gln Gln Glu Gln Leu Tyr

275 280

<210> 5199

<211> 1332

<212> DNA

<213> Homo sapiens

<400> 5199

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120

cagccgctga ggtgactttc aacggcagac cgtctcctga gcgccccagg tagaatttca

180

aaagtctccg ggaccattat ggcagtcagg tggacgggtg ggcattcttc tcctgtcctc

240

tgctgaatg caagtaaaga agggctgctg gcttctggag cagagggcgg agatctcacg

300

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360

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420

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600

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660

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1020

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1080

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1140

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Gln Gly Ala Asp Asp Val Thr Ser Val Leu Phe Ser Pro Ser Cys Pro  
50 55 60  
Thr Lys Leu Tyr Ala Ser His Gly Glu Thr Ile Ser Val Leu Asp Val  
65 70 75 80  
Arg Ser Leu Lys Asp Ser Leu Asp His Phe His Val Asn Glu Glu Glu  
85 90 95  
Ile Asn Cys Leu Ser Leu Asn Gln Thr Glu Asn Leu Leu Ala Ser Ala  
100 105 110  
Asp Asp Ser Gly Ala Ile Lys Ile Leu Asp Leu Glu Asn Lys Lys Val  
115 120 125  
Ile Arg Ser Leu Lys Arg His Ser Asn Ile Cys Ser Ser Val Ala Phe  
130 135 140  
Arg Pro Gln Arg Pro Gln Ser Leu Val Ser Cys Gly Leu Asp Met Gln  
145 150 155 160  
Val Met Leu Trp Ser Leu Gln Lys Ala Arg Pro Leu Trp Ile Thr Asn  
165 170 175  
Leu Gln Glu Asp Glu Thr Glu Glu Met Glu Gly Pro Gln Ser Pro Gly  
180 185 190  
Gln Leu Leu Asn Pro Ala Leu Ala His Ser Ile Ser Val Ala Ser Cys  
195 200 205  
Gly Asn Ile Phe Ser Cys Gly Ala Glu Asp Gly Lys Val Arg Ile Phe  
210 215 220  
Arg Val Met Gly Val Lys Cys Glu Gln Glu Leu Gly Phe Lys Gly His  
225 230 235 240  
Thr Ser Gly Val Ser Gln Val Cys Phe Leu Pro Glu Ser Tyr Leu Leu  
245 250 255  
Leu Thr Gly Gly Asn Asp Gly Lys Ile Thr Leu Trp Asp Ala Asn Ser  
260 265 270  
Glu Val Glu Lys Lys Gln Lys Ser Pro Thr Lys Arg Thr His Arg Lys  
275 280 285  
Lys Pro Lys Arg Gly Thr Cys Thr Lys Gln Gly Gly Asn Thr Asn Ala  
290 295 300  
Ser Val Thr Asp Glu Glu His Gly Asn Ile Leu Pro Lys Leu Asn  
305 310 315 320  
Ile Glu His Gly Glu Lys Val Asn Trp Leu Leu Gly Thr Lys Ile Lys  
325 330 335  
Gly His Gln Asn Ile Leu Val Ala Asp Gln Thr Ser Cys Ile Ser Val  
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Tyr Pro Leu Asn Glu Phe

355

&lt;210&gt; 5201

&lt;211&gt; 6104

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5201

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4379

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6104

&lt;210&gt; 5202

&lt;211&gt; 108

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5202

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Ser Pro Gly Pro Arg Gly Leu Pro Glu Gly Pro Gln Ala Leu Gly Arg
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Val Ala Val Gly Gln Val His Cys Pro Glu Val Leu Ser Ala Leu
      20           25           30
Ser Gln Gly Ser Leu Glu Arg Gly Leu Ala Gly Leu Gly Gly His Arg
      35           40           45
Pro His Ser Gly Leu Pro Ala Gln Gly Arg Arg Pro Glu Pro Val Trp
      50           55           60
Pro Cys Ser Pro Gly Gln Ser Trp Ala Cys Arg Val Phe Leu Pro Gly
65           70           75           80
Arg Cys Arg Cys Trp Pro Ser Ala Gly Gly Arg Arg Trp Glu Ser Trp
      85           90           95
Ile Phe Cys Phe Phe Leu Ser Phe Phe Phe Leu Arg
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<210> 5203

<211> 1863

<212> DNA

<213> Homo sapiens

<400> 5203

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120
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180
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240
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300
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360
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420
ccagccacac tgtttgcggt catgtttgct atgtatataa tctcaggact gactggcttc
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840
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900

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 1860  
 aaa  
 1863

&lt;210&gt; 5204

&lt;211&gt; 249

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5204

Glu Asn Leu Val Glu Lys Glu Ile Ser Gly Ser Lys Val Thr Cys Arg  
 1 5 10 15  
 Asp Leu Val Glu Tyr Phe Lys Ala Tyr Ile Lys Ile Tyr Gln Gly Glu  
 20 25 30  
 Glu Leu Pro His Pro Lys Ser Met Leu Gln Ala Thr Ala Glu Ala Asn  
 35 40 45  
 Asn Leu Ala Ala Val Ala Gly Ala Arg Asp Thr Tyr Cys Lys Ser Met  
 50 55 60  
 Glu Gln Val Cys Gly Gly Asp Lys Pro Tyr Ile Ala Pro Ser Asp Leu  
 65 70 75 80  
 Glu Arg Lys His Leu Asp Leu Lys Glu Val Ala Ile Lys Gln Phe Arg  
 85 90 95  
 Ser Val Lys Lys Met Gly Gly Asp Glu Phe Cys Arg Arg Tyr Gln Asp

	100		105		110										
Gln	Leu	Glu	Ala	Glu	Ile	Glu	Glu	Thr	Tyr	Ala	Asn	Phe	Ile	Lys	His
	115				120						125				
Asn	Asp	Gly	Lys	Asn	Ile	Phe	Tyr	Ala	Ala	Arg	Thr	Pro	Ala	Thr	Leu
	130				135						140				
Phe	Ala	Val	Met	Phe	Ala	Met	Tyr	Ile	Ile	Ser	Gly	Leu	Thr	Gly	Phe
145				150						155				160	
Ile	Gly	Leu	Asn	Ser	Ile	Ala	Val	Leu	Cys	Asn	Leu	Val	Met	Gly	Leu
			165						170				175		
Ala	Leu	Ile	Phe	Leu	Cys	Thr	Trp	Ala	Tyr	Val	Lys	Tyr	Ser	Gly	Glu
		180						185					190		
Phe	Arg	Glu	Ile	Gly	Thr	Val	Ile	Asp	Gln	Ile	Ala	Glu	Thr	Leu	Trp
	195						200					205			
Glu	Gln	Val	Leu	Lys	Pro	Leu	Gly	Asp	Asn	Leu	Met	Glu	Glu	Asn	Ile
	210					215					220				
Arg	Gln	Ser	Val	Thr	Asn	Ser	Ile	Lys	Ala	Gly	Leu	Thr	Asp	Gln	Val
225					230					235				240	
Ser	His	His	Ala	Arg	Leu	Lys	Thr	Asp							
					245										

&lt;210&gt; 5205

&lt;211&gt; 2011

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5205

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 180  
 cgagctgatg tgacaactgc tttccccacc cttggaactg atcaagtctc tgagttagta  
 240  
 cctggaaaag aggagctcaa cattgtgaag ttgtatgctc acaaagggga tgcagtgact  
 300  
 gtgtacgtga gtggtggtaa ccccatcctc tttgaactgg agaaaaatct gstatccaaca  
 360  
 gtgtacacgc tgtggtccta tctgtatctt ctgccaacct ttacaacatg gcctctgggtg  
 420  
 ctcgagaaac tggtaggggg agcagatttg atgctgctg gactgggtgat gccccctgct  
 480  
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 540  
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 600  
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 660  
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 720  
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 780  
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 840

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 1440  
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 1920  
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 1980  
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 2011

&lt;210&gt; 5206

&lt;211&gt; 248

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5206

His Ser Leu Ala Ser Val Leu Ser Ser Pro Gly His Pro Ser Arg His  
 1 5 10 15  
 Val Ala Lys Ala Phe Arg Val Lys Ser Asn Thr Ala Ile Lys Gly Ser  
 20 25 30  
 Asp Arg Arg Lys Leu Arg Ala Asp Val Thr Thr Ala Phe Pro Thr Leu  
 35 40 45  
 Gly Thr Asp Gln Val Ser Glu Leu Val Pro Gly Lys Glu Glu Leu Asn

50		55		60
Ile Val Lys Leu Tyr Ala	His Lys Gly Asp Ala	Val Thr Val Tyr Val		
65	70	75	80	
Ser Gly Gly Asn Pro Ile	Leu Phe Glu Leu Glu	Lys Asn Leu Tyr Pro		
	85	90	95	
Thr Val Tyr Thr Leu Trp	Ser Tyr Pro Asp Leu Leu	Pro Thr Phe Thr		
	100	105	110	
Thr Trp Pro Leu Val Leu	Glu Lys Leu Val Gly Gly	Ala Asp Leu Met		
	115	120	125	
Leu Pro Gly Leu Val Met	Pro Pro Ala Gly Leu Pro	Gln Val Gln Lys		
	130	135	140	
Gly Asp Leu Cys Ala Ile	Ser Leu Val Gly Asn Arg	Ala Pro Val Ala		
145	150	155	160	
Ile Gly Val Ala Ala Met	Ser Thr Ala Glu Met Leu	Thr Ser Gly Leu		
	165	170	175	
Lys Gly Arg Gly Phe Ser	Val Leu His Thr Tyr Gln	Asp His Leu Trp		
	180	185	190	
Arg Ser Gly Asn Lys Ser	Ser Pro Pro Ser Ile Ala	Pro Leu Ala Leu		
	195	200	205	
Asp Ser Ala Asp Leu Ser	Glu Glu Lys Gly Ser Val	Gln Met Asp Ser		
	210	215	220	
Thr Leu Gln Gly Asp Met	Arg His Met Thr Leu Glu	Gly Glu Glu Glu		
225	230	235	240	
Asn Gly Glu Val His Gln	Gly Thr			
	245			

&lt;210&gt; 5207

&lt;211&gt; 594

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5207

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 180  
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 240  
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 480  
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 594

&lt;210&gt; 5208

<211> 136  
 <212> PRT  
 <213> Homo sapiens

<400> 5208  
 Met Val Ser Thr Tyr Arg Val Ala Val Leu Gly Ala Arg Gly Val Gly  
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 Lys Ser Ala Ile Val Arg Gln Phe Leu Tyr Asn Glu Phe Ser Glu Val  
 20 25 30  
 Cys Val Pro Thr Thr Ala Arg Arg Leu Tyr Leu Pro Ala Val Val Met  
 35 40 45  
 Asn Gly His Val His Asp Leu Gln Ile Leu Asp Phe Pro Pro Ile Ser  
 50 55 60  
 Ala Phe Pro Val Asn Thr Leu Gln Glu Trp Ala Asp Thr Cys Cys Arg  
 65 70 75 80  
 Gly Leu Arg Ser Val His Ala Tyr Ile Leu Val Tyr Asp Ile Cys Cys  
 85 90 95  
 Phe Asp Ser Phe Glu Tyr Val Lys Thr Ile Arg Gln Gln Ile Leu Glu  
 100 105 110  
 Thr Arg Val Ile Gly Thr Ser Glu Thr Pro Ile Ile Ile Val Gly Asn  
 115 120 125  
 Lys Arg Asp Leu Gln Arg Gly Arg  
 130 135

<210> 5209  
 <211> 1592  
 <212> DNA  
 <213> Homo sapiens

<400> 5209  
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 120  
 ctgagccggc tcaactggctc ccgagcctct ggggccaac tcgaggccaa ggtgcgaggg  
 180  
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 240  
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 300  
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 420  
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 720

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1560
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
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<210> 5210  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

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<400> 5210
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Leu Met Arg Ser Val Pro Asp Pro Ser Thr Arg Ala Leu Leu Leu Leu
          20            25            30
Ala Leu Leu Ile Leu Tyr Ala Leu Leu Ser Arg Leu Thr Gly Ser Arg
      35            40            45
Ala Ser Gly Ala Gln Leu Glu Ala Lys Val Arg Gly Leu Glu Arg Gln
      50            55            60
Val Glu Glu Leu Arg Trp Arg Gln Arg Arg Ala Ala Lys Gly Ala Arg
 65            70            75            80
Ser Val Glu Glu Glu
          85

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<210> 5211  
 <211> 602  
 <212> DNA  
 <213> Homo sapiens

<400> 5211  
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120  
gcacaggacc agacaacaag tttttaaaaa tgatgccaga gcattagaag cagccagaat  
180  
aaagataaat gaagaattca aaaataataa aagtgaact tcttctaaga aaatagaaga  
240  
gctaataaaa ataggttctg atgttgaatt attactcaga acatctgtta tacaagggtat  
300  
tcacacagac cacaatacac tgaaactggt ccctaggaaa gaccttcttg tagaaaatgt  
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tactttttta ctttaaaatc tacaactctg gcaaaagtcc tggaaatgca gacattttcc  
480  
ctgaaactggc atattgaaaa tgaatgaatt acagaatagc ttcatttta aatttcattg  
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ag  
602

<210> 5212  
<211> 104  
<212> PRT  
<213> Homo sapiens

<400> 5212  
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Thr Arg Gln Gln Val Phe Lys Asn Asp Ala Arg Ala Leu Glu Ala Ala  
20 25 30  
Arg Ile Lys Ile Asn Glu Glu Phe Lys Asn Asn Lys Ser Glu Thr Ser  
35 40 45  
Ser Lys Lys Ile Glu Glu Leu Met Lys Ile Gly Ser Asp Val Glu Leu  
50 55 60  
Leu Leu Arg Thr Ser Val Ile Gln Gly Ile His Thr Asp His Asn Thr  
65 70 75 80  
Leu Lys Leu Val Pro Arg Lys Asp Leu Leu Val Glu Asn Val Pro Tyr  
85 90 95  
Cys Asp Ala Pro Thr Gln Lys Gln  
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<210> 5213  
<211> 4387  
<212> DNA  
<213> Homo sapiens

<400> 5213  
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gagacgcaac tgcagagcat ttctgaagag gtggtgaaaa cggaagttat agaagaggct  
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240  
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&lt;210&gt; 5214

&lt;211&gt; 1364

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5214

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Val	Ile	Glu	Glu	Ala	Phe	Pro	Gly	Met	Phe	Met	Asp	Thr	Pro	Glu	Asp
		20					25				30				
Glu	Lys	Thr	Lys	Leu	Ile	Ser	Cys	Leu	Gly	Ala	Phe	Arg	Gln	Phe	Trp
		35				40					45				
Gly	Gly	Leu	Ser	Gln	Glu	Ser	His	Glu	Gln	Cys	Ile	Gln	Trp	Ile	Val
	50					55				60					
Lys	Phe	Ile	His	Gly	Gln	His	Ser	Pro	Lys	Arg	Ile	Ser	Phe	Leu	Tyr

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65          70          75          80
Asp Cys Leu Ala Met Ala Val Glu Thr Gly Leu Leu Pro Pro Arg Leu
      85          90          95
Val Cys Glu Ser Leu Ile Asn Ser Asp Thr Leu Glu Trp Glu Arg Thr
      100         105         110
Gln Leu Trp Ala Leu Thr Phe Lys Leu Val Arg Lys Ile Ile Gly Gly
      115         120         125
Val Asp Tyr Lys Gly Val Arg Asp Leu Leu Lys Val Ile Leu Glu Lys
      130         135         140
Ile Leu Thr Ile Pro Asn Thr Val Ser Ser Ala Val Val Gln Gln Leu
      145         150         155
Leu Ala Ala Arg Glu Val Ile Ala Tyr Ile Leu Glu Arg Asn Ala Cys
      165         170         175
Leu Leu Pro Ala Tyr Phe Ala Val Thr Glu Ile Arg Lys Leu Tyr Pro
      180         185         190
Glu Gly Lys Leu Pro His Trp Leu Leu Gly Asn Leu Val Ser Asp Phe
      195         200         205
Val Asp Thr Phe Arg Pro Thr Ala Arg Ile Asn Ser Ile Cys Gly Arg
      210         215         220
Cys Ser Leu Leu Pro Val Val Asn Asn Ser Gly Ala Ile Cys Asn Ser
      225         230         235
Trp Lys Leu Asp Pro Ala Thr Leu Arg Phe Pro Leu Lys Gly Leu Leu
      245         250         255
Pro Tyr Asp Lys Asp Leu Phe Glu Pro Gln Thr Ala Leu Leu Arg Tyr
      260         265         270
Val Leu Glu Gln Pro Tyr Ser Arg Asp Met Val Cys Asn Met Leu Gly
      275         280         285
Leu Asn Lys Gln His Lys Gln Arg Cys Pro Val Leu Glu Asp Gln Leu
      290         295         300
Val Asp Leu Val Val Tyr Ala Met Glu Arg Ser Glu Thr Glu Glu Lys
      305         310         315
Phe Asp Asp Gly Gly Thr Ser Gln Leu Leu Trp Gln His Leu Ser Ser
      325         330         335
Gln Leu Ile Phe Phe Val Leu Phe Gln Phe Ala Ser Phe Pro His Met
      340         345         350
Val Leu Ser Leu His Gln Lys Leu Ala Gly Arg Gly Leu Ile Lys Gly
      355         360         365
Arg Asp His Leu Met Trp Val Leu Leu Gln Phe Ile Ser Gly Ser Ile
      370         375         380
Gln Lys Asn Ala Leu Ala Asp Phe Leu Pro Val Met Lys Leu Phe Asp
      385         390         395
Leu Leu Tyr Pro Glu Lys Glu Tyr Ile Pro Val Pro Asp Ile Asn Lys
      405         410         415
Pro Gln Ser Thr His Ala Phe Ala Met Thr Cys Ile Trp Ile His Leu
      420         425         430
Asn Arg Lys Ala Gln Asn Asp Asn Ser Lys Leu Gln Ile Pro Ile Pro
      435         440         445
His Ser Leu Arg Leu His His Glu Phe Leu Gln Gln Ser Leu Arg His
      450         455         460
Lys Ser Leu Gln Met Asn Asp Tyr Lys Ile Ala Leu Leu Cys Asn Ala
      465         470         475
Tyr Ser Thr Asn Ser Glu Cys Val Thr Leu Pro Met Gly Ala Leu Val
      485         490         495
Glu Thr Ile Tyr Gly Asn Gly Ile Met Arg Leu Pro Leu Pro Gly Thr

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Thr	Arg	Val	Ile	Lys	Leu	Ala	His	Ala	Lys	Ser	Ser	Val	Ala	Leu	Ala	
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Pro	Ala	Leu	Val	Glu	Thr	Tyr	Ser	Arg	Leu	Leu	Val	Tyr	Met	Glu	Ile	
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Glu	Ser	Leu	Gly	Ile	Lys	Gly	Phe	Ile	Ser	Gln	Leu	Leu	Pro	Thr	Val	
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Phe	Lys	Ser	His	Ala	Trp	Gly	Ile	Leu	His	Thr	Leu	Leu	Glu	Met	Phe	
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Ser	Tyr	Arg	Met	His	His	Ile	Gln	Pro	His	Tyr	Arg	Val	Gln	Leu	Leu	
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Ser	His	Leu	His	Thr	Leu	Ala	Ala	Val	Ala	Gln	Thr	Asn	Gln	Asn	Gln	
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Leu	His	Leu	Cys	Val	Glu	Ser	Thr	Ala	Leu	Arg	Leu	Ile	Thr	Ala	Leu	
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Gly	Ser	Ser	Glu	Val	Gln	Pro	Gln	Phe	Thr	Arg	Phe	Leu	Ser	Asp	Pro	
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Lys	Thr	Val	Leu	Ser	Ala	Glu	Ser	Glu	Glu	Leu	Asn	Arg	Ala	Leu	Ile	
			675			680					685					
Leu	Thr	Leu	Ala	Arg	Ala	Thr	His	Val	Thr	Asp	Phe	Phe	Thr	Gly	Ser	
			690			695					700					
Asp	Ser	Ile	Gln	Gly	Thr	Trp	Cys	Lys	Asp	Ile	Leu	Gln	Thr	Ile	Met	
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Gly	Pro	Leu	Gln	Ala	Phe	Phe	Lys	Gln	Asn	Asn	Val	Pro	Gln	Glu	Ser	
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Arg	Phe	Asn	Leu	Lys	Lys	Asn	Val	Glu	Glu	Glu	Tyr	Arg	Lys	Trp	Lys	
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Ser	Met	Ser	Asn	Glu	Asn	Asp	Ile	Ile	Thr	His	Phe	Ser	Met	Gln	Gly	
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Ser	Pro	Pro	Leu	Phe	Leu	Cys	Leu	Leu	Trp	Lys	Met	Leu	Leu	Glu	Thr	
785					790					795				800		
Asp	His	Ile	Asn	Gln	Ile	Gly	Tyr	Arg	Val	Leu	Glu	Arg	Ile	Gly	Ala	
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Arg	Asn	Arg	Val	Ser	Asp	Phe	Val	Lys	Glu	Asn	Ser	Pro	Glu	His	Trp	
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Leu	Gln	Asn	Asp	Trp	His	Thr	Lys	His	Met	Asn	Tyr	His	Lys	Lys	Tyr	
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&lt;210&gt; 5215

&lt;211&gt; 548

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5215

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&lt;210&gt; 5216

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5216

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			20					25					30		
Val	Asp	Glu	Ala	Ala	Ala	Gly	Xaa	Glu	Arg	Thr	Asp	Cys	Ser	Ser	Glu
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Arg	Glu	Ile	Phe	His	Glu	Arg	Lys	Ser	Pro	Ser	Leu	Trp	Pro	Thr	Phe
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Leu	Trp	Ser													

&lt;210&gt; 5217

&lt;211&gt; 4189

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5217

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3240



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&lt;210&gt; 5218

&lt;211&gt; 541

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5218

Met	Ala	Gly	Asp	Arg	Ala	Arg	Trp	Trp	Thr	Met	Ala	Trp	Ser	Thr	Gly
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Ser	Trp	Ala	Met	Gly	Ser	Leu	Arg	Pro	Glu	Ala	Pro	Leu	Leu	Ser	Ser
			20					25					30		
Ser	Thr	Leu	Arg	Cys	Cys	Ser	Gly	Asn	Ser	Ser	Asp	Trp	Leu	Gly	Gly
		35					40					45			
Ser	Pro	Gly	Ala	Ala	Pro	Gly	Thr	Leu	Cys	Cys	Phe	Leu	Trp	Pro	Arg
	50					55					60				
Val	Gly	Thr	Gly	Leu	Cys	Pro	Gly	Leu	Ser	Leu	Pro	Gln	Pro	His	Leu
65				70						75				80	
Pro	His	Cys	Gln	Pro	Gln	Ser	Leu	Pro	Ala	Xaa	Ala	Arg	Val	Leu	Ser
				85					90					95	
Ser	Ser	Glu	Thr	Pro	Ala	Arg	Thr	Leu	Pro	Phe	Thr	Thr	Gly	Leu	Ile
		100						105					110		
Tyr	Asp	Ser	Val	Met	Leu	Lys	His	Gln	Cys	Ser	Cys	Gly	Asp	Asn	Ser

```

      115      120      125
Arg His Pro Glu His Ala Gly Arg Ile Gln Ser Ile Trp Ser Arg Leu
      130      135      140
Gln Glu Arg Gly Leu Arg Ser Gln Cys Glu Cys Leu Arg Gly Arg Lys
      145      150      155      160
Ala Ser Leu Glu Glu Leu Gln Ser Val His Ser Glu Arg His Val Leu
      165      170      175
Leu Tyr Gly Thr Asn Pro Leu Ser Arg Leu Lys Leu Asp Asn Gly Lys
      180      185      190
Leu Ala Gly Leu Leu Ala Gln Arg Met Phe Val Met Leu Pro Cys Gly
      195      200      205
Gly Val Gly Val Asp Thr Asp Thr Ile Trp Asn Glu Leu His Ser Ser
      210      215      220
Asn Ala Ala Arg Trp Ala Ala Gly Ser Val Thr Asp Leu Ala Phe Lys
      225      230      235      240
Val Ala Ser Arg Glu Leu Lys Asn Gly Phe Ala Val Val Arg Pro Pro
      245      250      255
Gly His His Ala Asp His Ser Thr Ala Met Gly Phe Cys Phe Phe Asn
      260      265      270
Ser Val Ala Ile Ala Cys Arg Gln Leu Gln Gln Ser Lys Ala Ser
      275      280      285
Lys Ile Leu Ile Val Asp Trp Asp Val His His Gly Asn Ala Thr Gln
      290      295      300
Gln Thr Phe Tyr Gln Asp Pro Ser Val Leu Tyr Ile Ser Leu His Arg
      305      310      315      320
His Asp Asp Gly Asn Phe Phe Pro Gly Ser Gly Ala Val Asp Glu Val
      325      330      335
Gly Ala Gly Ser Gly Glu Gly Phe Asn Val Asn Val Ala Trp Ala Gly
      340      345      350
Gly Leu Asp Pro Pro Met Gly Asp Pro Glu Tyr Leu Ala Ala Phe Arg
      355      360      365
Ile Val Val Met Pro Ile Ala Arg Glu Phe Ser Pro Asp Leu Val Leu
      370      375      380
Val Ser Ala Gly Phe Asp Ala Ala Glu Gly His Pro Ala Pro Leu Gly
      385      390      395      400
Gly Tyr His Val Ser Ala Lys Cys Phe Gly Tyr Met Thr Gln Gln Leu
      405      410      415
Met Asn Leu Ala Gly Gly Ala Val Val Leu Ala Leu Glu Gly Gly His
      420      425      430
Asp Leu Thr Ala Ile Cys Asp Ala Ser Glu Ala Cys Val Ala Ala Leu
      435      440      445
Leu Gly Asn Arg Val Asp Pro Leu Ser Glu Glu Gly Trp Lys Gln Lys
      450      455      460
Pro Asn Leu Asn Ala Ile Arg Ser Leu Glu Ala Val Ile Arg Val His
      465      470      475      480
Ser Lys Tyr Trp Gly Cys Met Gln Arg Leu Ala Ser Cys Pro Asp Ser
      485      490      495
Trp Val Pro Arg Val Pro Gly Ala Asp Lys Glu Glu Val Glu Ala Val
      500      505      510
Thr Ala Leu Ala Ser Leu Ser Val Gly Ile Leu Ala Glu Asp Arg Pro
      515      520      525
Ser Glu Gln Leu Val Glu Glu Glu Glu Pro Met Asn Leu
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<210> 5219  
<211> 1212  
<212> DNA  
<213> Homo sapiens

<400> 5219  
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120  
aacgtctccc tgctcacccc acccccgcg agacgcagtg ctgagcacac agctaccgga  
180  
caaagagtga cggccggagc tggagttatg gcggctacgg agccgatctt ggcggccact  
240  
gggagtcctc cggcggtgcc accggagaaa ctggaaggag ccggttcgag ctacgcccct  
300  
gagcgtaact gtgtgggctc ctcgctgcca gaggcctcac cgcctgcccc tgagccttcc  
360  
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420  
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480  
cgctccacac caggccccgc cggctctaga ctccggtccc agacgttccg ccagcgtttc  
540  
cggcagtttc gctaccagga tgcggcggtt ccccgggagg ttttccggca gctgcgggag  
600  
ctgtccccgc agtggctgcg gcctgacatc cgcaccaagg agcagatcgt ggagatgctg  
660  
gtgcaagagc agctgctcgc catcctgccc gagcgggctc gggcccgggc gatccgcccg  
720  
cgcacggatg tgcgcatcac tggctgagcg gtggagctgc gggcgggccg ggcggggcgc  
780  
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840  
ttaatgaaaa atgagttttg gcagcgcttg tggctctggtg tgtctctttc attcgttctt  
900  
attgggttta ttttaccaag cctgtttcct accgccttcc tggctgggtg cgaaacgaag  
960  
ttgggagtc gtaacaataa ggccttcggt ggctatagtg ggatctttag atgttgactg  
1020  
aacctagggt atccctctac cacacatggg aagtttttca cctgggctcc caaggaccca  
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cttgggtttc ttacacgcaa aatagctggc tctattaaat gctcacttaa ctggctacct  
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ctataccaat atgggcacca acttgcacct gccctttggg tacaggcttc ccacaatgtc  
1200  
cnagttactg gg  
1212

<210> 5220  
<211> 179  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 5220

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Met Ala Ala Thr Glu Pro Ile Leu Ala Ala Thr Gly Ser Pro Ala Ala
 1           5           10           15
Val Pro Pro Glu Lys Leu Glu Gly Ala Gly Ser Ser Ser Ala Pro Glu
 20           25           30
Arg Asn Cys Val Gly Ser Ser Leu Pro Glu Ala Ser Pro Pro Ala Pro
 35           40           45
Glu Pro Ser Ser Pro Asn Ala Ala Val Pro Glu Ala Ile Pro Thr Pro
 50           55           60
Arg Ala Ala Ala Ser Ala Ala Leu Glu Leu Pro Leu Gly Pro Ala Pro
 65           70           75           80
Val Ser Val Ala Pro Gln Ala Glu Ala Glu Ala Arg Ser Thr Pro Gly
 85           90           95
Pro Ala Gly Ser Arg Leu Gly Pro Glu Thr Phe Arg Gln Arg Phe Arg
100           105           110
Gln Phe Arg Tyr Gln Asp Ala Ala Gly Pro Arg Glu Ala Phe Arg Gln
115           120           125
Leu Arg Glu Leu Ser Arg Gln Trp Leu Arg Pro Asp Ile Arg Thr Lys
130           135           140
Glu Gln Ile Val Glu Met Leu Val Gln Glu Gln Leu Leu Ala Ile Leu
145           150           155           160
Pro Glu Ala Ala Arg Ala Arg Arg Ile Arg Arg Arg Thr Asp Val Arg
165           170           175
Ile Thr Gly

```

&lt;210&gt; 5221

&lt;211&gt; 497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5221

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ntccggaccc tccaagtggg gaccctggtg gagcccccag aaccatgtgc cgagcccgtc
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gcttttggag acacgcttca catacactac acgggaagct tggtagatgg acgtattatt
120
gacacctccc tgaccagaga ccctctggtt atagaacttg gccaaaagca ggtgattcca
180
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240
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300
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420
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tcagccacca tctgtcc
497

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&lt;210&gt; 5222

&lt;211&gt; 112

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5222

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Xaa Arg Thr Leu Gln Val Glu Thr Leu Val Glu Pro Pro Glu Pro Cys
 1           5           10           15
Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr Thr Gly
 20           25           30
Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg Asp Pro
 35           40           45
Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu Glu Gln
 50           55           60
Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile Ile Pro
 65           70           75           80
Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val Pro Gly
 85           90           95
Thr Lys Asp Asn Leu Met Arg Pro Pro Gly Met Thr Ser Ser Ser Gln
100           105           110

```

<210> 5223

<211> 637

<212> DNA

<213> Homo sapiens

<400> 5223

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120
tcagagaaga caggacgggg acagttgagg gaaggctgga gagatagtca tcagcctatc
180
atgtgctcct acaagctggt gactgtgaag tttaggtctt gggggcttca gaccagagtg
240
gaacaatttg tacacaaggt ggtccgagac attctgctga ttggacatag acaggctttt
300
gcatgggttg atgagtggta tgatatgaca atggatgatg ttcgggaata cgagaaaaac
360
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420
gagagtcatg cccaaacaag tacatgacaa tggatgaagt ccgagaattt gaacgagcca
480
ctcaggaagc caccaacaag aaaatcggca ttttcccacc tgcaatttct atctccagca
540
tccccctgct gccttcttcc gtccgcagtg cgccttctag tgctccatcc acccctctct
600
ccacagacgc acccgaattt ctgtccgttc ccaaaga
637

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<210> 5224

<211> 148

<212> PRT

<213> Homo sapiens

<400> 5224

```

Xaa Thr Ile Phe Asp Asn Glu Ala Lys Asp Val Glu Arg Glu Val Cys

```

```

      1           5           10           15
Phe Ile Asp Ile Ala Cys Asp Glu Ile Pro Glu Arg Tyr Tyr Lys Glu
      20           25           30
Ser Glu Asp Pro Lys His Phe Lys Ser Glu Lys Thr Gly Arg Gly Gln
      35           40           45
Leu Arg Glu Gly Trp Arg Asp Ser His Gln Pro Ile Met Cys Ser Tyr
      50           55           60
Lys Leu Val Thr Val Lys Phe Glu Val Trp Gly Leu Gln Thr Arg Val
      65           70           75           80
Glu Gln Phe Val His Lys Val Val Arg Asp Ile Leu Leu Ile Gly His
      85           90           95
Arg Gln Ala Phe Ala Trp Val Asp Glu Trp Tyr Asp Met Thr Met Asp
      100          105          110
Asp Val Arg Glu Tyr Glu Lys Asn Met His Glu Gln Thr Asn Ile Lys
      115          120          125
Val Cys Asn Gln His Ser Ser Pro Val Asp Asp Ile Glu Ser His Ala
      130          135          140
Gln Thr Ser Thr
145

```

<210> 5225  
 <211> 394  
 <212> DNA  
 <213> Homo sapiens

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<400> 5225
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120
caggcctggt cagacggaca tgcccaaggg aacagatagt accaggacag gggaccctgg
180
tctgaagggg cgatagcctg gccccagtg gaaacagccc ctccaaccc tggcggcaga
240
caggggagggt cggcaggtat gtgagatgca aacctggggg actgcccatc cccagtgga
300
tgtgaggaca cgggtgggttc aggaagtgga gtgacaaatg ggctgtgctg gacttgcttt
360
ccccacatga aggttaggaa ccaagagaac ggcc
394

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<210> 5226  
 <211> 113  
 <212> PRT  
 <213> Homo sapiens

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<400> 5226
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      1           5           10           15
Glu Pro Thr Val Ser Ser His Pro Leu Gly Asp Gly Gln Ser Pro Arg
      20           25           30
Phe Ala Ser His Ile Pro Ala Asp Pro Pro Cys Leu Pro Pro Gly Leu
      35           40           45
Gly Gly Ala Val Ser Thr Gly Gly Gln Ala Ile Ala Pro Ser Asp Gln

```

50                      55                      60  
 Gly Pro Leu Ser Trp Tyr Tyr Leu Phe Pro Trp Ala Cys Pro Ser Asp  
 65                      70                      75                      80  
 Gln Ala Cys Gln Asp Ser Ala Tyr Val Ser Pro Ser Pro Ser Ser Ala  
                     85                      90                      95  
 Leu Gly Pro Ser Leu Pro Gln Pro Gln Leu Pro Pro Pro Gly Ser Pro  
                     100                      105                      110  
 Pro

&lt;210&gt; 5227

&lt;211&gt; 2366

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5227

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 cagctgccag tgagatgttc tgcagctggt tgatcctctc gctgaagtcg gacacccact  
 120  
 ggatgacggt catgccggca ggcaccgtgt agaaggccag tgtggttaacc ttacctgtct  
 180  
 acctgaactt caccctgtga gacctcatct tcaccgtgga cttcgaaatt gctacaaagg  
 240  
 aggatcctcg cagctcttac gagcgggggtg tcgcagtcct gtgcacagag taaacttttc  
 300  
 tagctgcccc tttctgtaat agtgaaagt ggtatttaac atttattcat ttttaaata  
 360  
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 420  
 ggaatctgac ggttgggagt ggtggaaatt ggaaggatc caggaggtat ttgggaaac  
 480  
 cttacggagc tgccctcgtc tactggagca gaagaaatag acctaatttt cctcaaggga  
 540  
 attatggaga atcctattgt aaaatcactt gctaaggctc gtgagaggct agaagattcc  
 600  
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 660  
 actcctctaa taaatgtgga tgaaaatgtg gcagaattgg ttggtatact caaagaacct  
 720  
 cacttccagt cactgttggg ggcccatgat attgtggcat caaagtgtta tgattcacct  
 780  
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 840  
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 900  
 gaaaataatg atctggtaat tgcccgaatc ctccatgggg gaatgataga tcgacaagg  
 960  
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 1020  
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 1080  
 agttatagag ataccattac tcctcaacag gtatttgtga agtgtcattt tgattataat  
 1140

ccatacaatg acaaccta atcttgcaaa gaagcaggat tgaagttttc caaaggagag  
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 1440  
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 1680  
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 1860  
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 1980  
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 2040  
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 2160  
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 2220  
 agtacacttc tgaattttta tataaaatgt ggttgaagg tgtaactaata tataatttat  
 2280  
 cttaattttt ctaactttgt atggataatc tttctattca tatcacataa agaaatgcgt  
 2340  
 tgaagcaaaa aaaaaaaaaa aaaaaa  
 2366

&lt;210&gt; 5228

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5228

Arg Leu Gly Val Val Glu Ile Gly Arg Ile Pro Gly Gly Ile Trp Glu  
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 Asn Leu Thr Glu Leu Pro Ser Ser Thr Gly Ala Glu Glu Ile Asp Leu  
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 Ile Phe Leu Lys Gly Ile Met Glu Asn Pro Ile Val Lys Ser Leu Ala



35 40 45  
 Lys Ala Arg Glu Arg Leu Glu Asp Ser Lys Leu Glu Ala Val Ser Asp  
 50 55 60  
 Asn Asn Leu Glu Leu Val Asn Glu Ile Leu Glu Asp Ile Thr Pro Leu  
 65 70 75 80  
 Ile Asn Val Asp Glu Asn Val Ala Glu Leu Val Gly Ile Leu Lys Glu  
 85 90 95  
 Pro His Phe Gln Ser Leu Leu Glu Ala His Asp Ile Val Ala Ser Lys  
 100 105 110  
 Cys Tyr Asp Ser Pro Pro Ser Ser Pro Glu Met Asn Asn Ser Ser Ile  
 115 120 125  
 Asn Asn Gln Leu Leu Pro Val Asp Ala Ile Arg Ile Leu Gly Ile His  
 130 135 140  
 Lys Arg Ala Gly Glu Pro Leu Gly Val Thr Phe Arg Val Glu Asn Asn  
 145 150 155 160  
 Asp Leu Val Ile Ala Arg Ile Leu His Gly Gly Met Ile Asp Arg Gln  
 165 170 175  
 Gly Leu Leu His Val Gly Asp Ile Ile Lys Glu Val Asn Gly His Glu  
 180 185 190  
 Val Gly Asn Asn Pro Lys Glu Leu Gln Glu Leu Leu Lys Asn Ile Ser  
 195 200 205  
 Gly Ser Val Thr Leu Lys Ile Leu Pro Ser Tyr Arg Asp Thr Ile Thr  
 210 215 220  
 Pro Gln Gln Val Phe Val Lys Cys His Phe Asp Tyr Asn Pro Tyr Asn  
 225 230 235 240  
 Asp Asn Leu Ile Pro Cys Lys Glu Ala Gly Leu Lys Phe Ser Lys Gly  
 245 250 255  
 Glu Ile Leu Gln Ile Val Asn Arg Glu Asp Pro Asn Trp Trp Gln Ala  
 260 265 270  
 Ser His Val Lys Glu Gly Gly Ser Ala Gly Leu Ile Pro Ser Gln Phe  
 275 280 285  
 Leu Glu Glu Lys Arg Lys Ala Phe Val Arg Arg Asp Trp Asp Asn Ser  
 290 295 300  
 Gly Pro Phe Cys Gly Thr Ile Ser Ser Lys Lys Lys Lys Met Met  
 305 310 315 320  
 Tyr Leu Thr Thr Arg Asn Ala Glu Phe Asp Arg His Glu Ile Gln Ile  
 325 330 335  
 Tyr Glu Glu Val Ala Lys Met Pro Pro Phe Gln Arg Lys Thr Leu Val  
 340 345 350  
 Leu Ile Gly Ala Gln Gly Val Gly Arg Arg Ser Leu Lys Asn Arg Phe  
 355 360 365  
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 370 375 380  
 Arg Lys Pro Arg Glu Asp Glu Lys Asp Gly Gln Ala Tyr Lys Phe Val  
 385 390 395 400  
 Ser Arg Ser Glu Met Glu Ala Asp Ile Lys Ala Gly Lys Tyr Leu Glu  
 405 410 415  
 His Gly Glu Tyr Glu Gly Asn Leu Tyr Gly Thr Lys Ile Asp Ser Ile  
 420 425 430  
 Leu Glu Val Val Gln Thr Gly Arg Thr Cys Ile Leu Asp Val Asn Pro  
 435 440 445  
 Gln Ala Leu Lys Val Leu Arg Thr Ser Glu Phe Met Pro Tyr Val Val  
 450 455 460  
 Phe Ile Ala Ala Pro Glu Leu Glu Thr Leu Arg Ala Met His Lys Ala

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465          470          475          480
Val Val Asp Ala Gly Ile Thr Thr Lys Leu Leu Thr Asp Ser Asp Leu
          485          490          495
Lys Lys Thr Val Asp Glu Ser Ala Arg Ile Gln Arg Ala Tyr Asn His
          500          505          510
Tyr Phe Asp Leu Ile Ile Ile Asn Asp Asn Leu Asp Lys Ala Phe Glu
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Pro Ile Ser Trp Val Tyr
545          550

<210> 5229
<211> 1031
<212> DNA
<213> Homo sapiens

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<210> 5230  
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 35 40 45  
 Glu Lys Asn Glu Glu Glu Lys Gln Leu His Arg Lys Arg Ala Val Ser  
 50 55 60  
 Gln Val Pro Pro Thr Val Leu Cys Arg Glu Pro Val Gly Glu Ala Lys  
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 <212> DNA  
 <213> Homo sapiens

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845

<210> 5232

<211> 201

<212> PRT

<213> Homo sapiens

<400> 5232

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Ser Pro Val Arg Thr Leu Gln Val Glu Thr Leu Val Glu Pro Pro Glu  
35 40 45  
Pro Cys Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr  
50 55 60  
Thr Gly Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg  
65 70 75 80  
Asp Pro Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu  
85 90 95  
Glu Gln Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile  
100 105 110  
Ile Pro Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val  
115 120 125  
Pro Ala Asp Ala Val Val Gln Tyr Asp Val Glu Leu Ile Ala Leu Ile  
130 135 140  
Arg Ala Asn Tyr Trp Leu Lys Leu Val Lys Gly Ile Leu Pro Leu Val  
145 150 155 160  
Gly Met Ala Met Val Pro Ala Leu Leu Gly Leu Ile Gly Tyr His Leu  
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<210> 5233

<211> 2801

<212> DNA

<213> Homo sapiens

<400> 5233

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<210> 5234  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

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<210> 5235  
 <211> 3017  
 <212> DNA  
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&lt;210&gt; 5236

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5236

Lys Thr Ile Val Leu Pro Pro Asn Trp Lys Thr Ala Arg Asp Pro Glu



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Ala Glu Met Asp Leu Gly Thr Pro Thr Tyr Asp Glu Asn Pro Met Lys
      50           55           60
Ala Ser Lys Lys Pro Lys Thr Ala Glu Ala Asp Thr Ser Ser Glu Leu
      65           70           75           80
Ala Lys Lys Ser Lys Glu Val Phe Arg Lys Glu Met Ser Gln Phe Ile
      85           90           95
Val Gln Cys Leu Asn Pro Tyr Arg Lys Pro Asp Cys Lys Val Gly Arg
      100          105          110
Ile Thr Thr Thr Glu Asp Phe Lys His Leu Ala Arg Lys Leu Thr His
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Gly Val Met Asn Lys Glu Leu Lys Tyr Cys Lys Asn Pro Glu Asp Leu
      130          135          140
Glu Cys Asn Glu Asn Val Lys His Lys Thr Lys Glu Tyr Ile Lys Lys
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 <213> Homo sapiens

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720

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 1238

&lt;210&gt; 5238

&lt;211&gt; 212

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5238

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Ile	Ser	Gly	Leu	Val	Lys	Met	Tyr	Lys	Ala	Lys	Asp	Tyr	Asn	Val	Asp
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Val	Phe	Thr	Phe	Thr	Ala	Gln	Met	Phe	Pro	Glu	Arg	His	Leu	Glu	Met
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Ala	Glu	Ile	Leu	Gly	Ala	Asp	Thr	Arg	Thr	Ala	Arg	Ile	Gln	Asp	Ala
	130				135					140					
Gly	Leu	Val	Leu	Ala	Asp	Thr	Leu	Arg	Lys	Phe	Leu	Phe	Asp	Leu	Asp
145				150						155				160	
Val	Asp	Asp	Gly	Leu	Ala	Ala	Val	Gly	Tyr	Ser	Lys	Ala	Asp	Ile	Pro
			165					170						175	
Ala	Leu	Val	Lys	Gly	Thr	Leu	Pro	Gln	Glu	Arg	Val	Thr	Lys	Leu	Ala
		180					185						190		
Pro	Arg	Pro	Gln	Ser	Glu	Glu	Asp	Leu	Ala	Ala	Leu	Phe	Glu	Ala	Ser
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Met	Lys	Leu	Tyr												
			210												

<210> 5239  
<211> 2061  
<212> DNA  
<213> Homo sapiens

<400> 5239  
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taaaaacaaa agaggtgagt gagaatcgtc acctttctgc ttctcttctt cacttgacca  
180  
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240  
acaaccgggtg tagaagaaaa taaatgggga gtgaaataga agaaaagatg agggagggga  
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360  
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420  
cagcctccca tccccaacgg taatggattc aatttcaagt ccacagagtg gggaggaagg  
480  
ataggggtggg aaagtggagc actcattttc aaacaagtct cccttgagaa ttcctgcctt  
540  
gaagtgcaga cagtatccaa gctccagggg ataggctgag gaccctgagg ctgagttccc  
600  
aaatcatggt gtcatttggg agttccaggc taaagttggt gccatcaggg ctctccagat  
660  
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720  
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780  
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900  
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1140  
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1320  
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1380  
cgggaggtat gtgtcaggga tgtgggggac aaaggagatg ccactttggg cccatccaga  
1440

tcaaagagag agtccttgag ctctatcttc tcaagcaagg tagcactgtc gggggcctgc  
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 agacgagaga aagtggacct tgggggtcct ggctgggtgg gacctgcttg agctgccctt  
 1560  
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 1620  
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 1680  
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 1740  
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 1860  
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 1920  
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 2040  
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 2061

&lt;210&gt; 5240

&lt;211&gt; 226

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5240

Met	Met	Ser	Ser	Ser	Met	Thr	Arg	Ile	Ser	Pro	Ser	Leu	Glu	Leu	Ala
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Ser	Pro	Ser	Trp	Leu	Val	Ser	Val	Leu	Pro	Thr	Ser	Leu	Leu	Ser	Leu
			20					25					30		
Ser	Ala	Gly	Gly	Thr	Pro	Ser	Gly	Cys	Thr	Val	Ala	Gly	Gly	Leu	Gly
		35					40				45				
Ala	Ser	Gly	Gly	Val	Gly	Ser	Thr	Gly	Thr	Gly	Ala	Ser	Pro	Pro	Thr
	50					55				60					
Thr	Val	Ala	Ile	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
	65				70				75					80	
Ser	Ser	Glu	Ser	Val	Ser	Leu	Gly	Gly	Ala	Trp	Gly	Gly	Pro	Gly	Gly
			85					90						95	
Gly	Ser	Leu	Ser	Pro	Arg	Ser	Ala	Phe	Phe	Asn	Phe	Arg	Phe	Leu	Leu
		100					105						110		
Phe	Leu	Ile	Arg	Asp	Leu	Phe	Ser	Pro	Ser	Pro	Gly	Val	Gly	Arg	Gly
	115					120						125			
Leu	Arg	Ser	Thr	Pro	Lys	Pro	Ala	Pro	Ala	Pro	Gly	Pro	Asn	Phe	Arg
	130					135				140					
Phe	Phe	Arg	Ser	Phe	Phe	Arg	Gly	Gly	Trp	Glu	Arg	Ser	Pro	Trp	Glu
	145			150					155					160	
Arg	Gly	Thr	Gly	Val	Arg	Ala	Ala	Gly	Gly	Arg	Glu	Val	Cys	Val	Arg
		165					170						175		
Asp	Val	Gly	Asp	Lys	Gly	Asp	Ala	Thr	Leu	Gly	Pro	Ser	Arg	Ser	Lys
	180						185					190			
Arg	Glu	Ser	Leu	Ser	Phe	Ile	Phe	Ser	Ser	Lys	Val	Ala	Leu	Ser	Gly

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 Ala Cys Arg Arg Glu Lys Val Asp Leu Gly Gly Pro Gly Trp Val Gly  
 210                      215                      220  
 Pro Ala  
 225

<210> 5241  
 <211> 461  
 <212> DNA  
 <213> Homo sapiens

<400> 5241  
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 ccctcaatat gccgggggtg tacccatttc caagggatga cagcagggcc ccacagcgag  
 120  
 ccccaggctg atccggagcc ctcttcaccc ccgtccaggg ccgtttgcac tgctcccgcc  
 180  
 atcggcacac cttgttcttg ttgtgctggg acggcagcgc cccgtgaggt cagaggggtg  
 240  
 ctgtcacatc tgccaccagc tgtggtctcc tggagatttc agtgggtcgg tgcttcgctt  
 300  
 ctcacctggc cagctctgag ttcagcctct cgctgtggg gacccctgca tcctggcgcc  
 360  
 agaaggagga ggaagaagcc accagaggtt gccaggaacc cagtggcagg ggaggtgggg  
 420  
 ctgagccagg cccgcccgt gtgccgggag ttcccacgcg g  
 461

<210> 5242  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens

<400> 5242  
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 Cys Arg Gly Cys Thr His Phe Gln Gly Met Thr Ala Gly Pro His Ser  
 20                      25                      30  
 Glu Pro Gln Ala Asp Pro Glu Pro Ser Ser Ser Pro Ser Arg Ala Val  
 35                      40                      45  
 Cys Thr Ala Pro Gly Ile Gly Thr Pro Cys Ser Gly Cys Ala Gly Thr  
 50                      55                      60  
 Ala Ala Pro Arg Glu Val Arg Gly Leu Leu Ser His Leu Pro Pro Ser  
 65                      70                      75                      80  
 Val Val Ser Trp Arg Phe Gln Trp Phe Gly Ala Ser Leu Leu Thr Trp  
 85                      90                      95  
 Pro Ala Leu Ser Ser Ala Ser Arg Leu Trp Gly Pro Leu His Pro Gly  
 100                      105                      110  
 Gly Arg Arg Arg Lys Lys Pro Pro Glu Val Ala Arg Asn Pro Val  
 115                      120                      125  
 Ala Gly Glu Val Gly Leu Ser Gln Ala Arg Pro Leu Cys Arg Glu Phe  
 130                      135                      140  
 Pro Arg

145

&lt;210&gt; 5243

&lt;211&gt; 344

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5243

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 tggctggacc ttacagacga gccatttggt cagaaggtaa ctgtggaccc tgacaactca  
 120  
 aattgcagtg aagaaagtgc taggttgtct ttgaagcttg gtgatgctgg aaacccaga  
 180  
 agtcttgcta taagattcat ccttaccaat tacaacaagt tgtccatcca gagttggttt  
 240  
 agtttgcgcc gagtgcgagat catttccaac aattcaatcc aagcagtcct taacccaact  
 300  
 ggcgtatatg ctccctctgg ttactcctac cgctgccaac gcgt  
 344

&lt;210&gt; 5244

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5244

Xaa Ile Pro Cys Ile Leu Phe Trp Ala Lys Arg Ile Met Ile Lys Phe  
 1 5 10 15  
 Lys Asn Gln Thr Trp Leu Asp Leu Thr Asp Glu Pro Phe Gly Gln Lys  
 20 25 30  
 Val Thr Val Asp Pro Asp Asn Ser Asn Cys Ser Glu Glu Ser Ala Arg  
 35 40 45  
 Leu Ser Leu Lys Leu Gly Asp Ala Gly Asn Pro Arg Ser Leu Ala Ile  
 50 55 60  
 Arg Phe Ile Leu Thr Asn Tyr Asn Lys Leu Ser Ile Gln Ser Trp Phe  
 65 70 75 80  
 Ser Leu Arg Arg Val Glu Ile Ile Ser Asn Asn Ser Ile Gln Ala Val  
 85 90 95  
 Phe Asn Pro Thr Gly Val Tyr Ala Pro Ser Gly Tyr Ser Tyr Arg Cys  
 100 105 110  
 Gln Arg

&lt;210&gt; 5245

&lt;211&gt; 483

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5245

nngccatgga aacgaaagcg gccaaagtaga gctccgtcct gacgcgccgc ctcccggtggg  
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 ctccggccgg ctaagccgcg gcggacaact atgctgaaag ccaagatcct ctccgtgggg  
 120

ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact  
 180  
 gaatacagcc caaccaagg agtgagggtt gagtcctgct ggccggccct gatgaaggat  
 240  
 gctcatggag tggatgacgt cttcaatgct gacatcccaa gccaccggaa ggaaatggag  
 300  
 atgtgggtatt cctgctttgt ccaacagccg tccttacagg acacacagtg tatgctaatt  
 360  
 gcacaccaca aaccaggctc tggagatgat aaaggaagcc tgtctttgtc gccacccttg  
 420  
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 480  
 ttc  
 483

<210> 5246  
 <211> 131  
 <212> PRT  
 <213> Homo sapiens

<400> 5246  
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 Thr Val Leu Ala Asn Phe Leu Thr Glu Ser Ser Asp Ile Thr Glu Tyr  
 20 25 30  
 Ser Pro Thr Gln Gly Val Arg Phe Glu Ser Cys Trp Pro Ala Leu Met  
 35 40 45  
 Lys Asp Ala His Gly Val Val Ile Val Phe Asn Ala Asp Ile Pro Ser  
 50 55 60  
 His Arg Lys Glu Met Glu Met Trp Tyr Ser Cys Phe Val Gln Gln Pro  
 65 70 75 80  
 Ser Leu Gln Asp Thr Gln Cys Met Leu Ile Ala His His Lys Pro Gly  
 85 90 95  
 Ser Gly Asp Asp Lys Gly Ser Leu Ser Leu Ser Pro Pro Leu Asn Lys  
 100 105 110  
 Leu Lys Leu Val His Ser Asn Leu Glu Asp Asp Pro Glu Glu Ile Arg  
 115 120 125  
 Met Glu Phe  
 130

<210> 5247  
 <211> 1004  
 <212> DNA  
 <213> Homo sapiens

<400> 5247  
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 120  
 ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact  
 180  
 gaatacagcc caaccaagg agtgaggatc ctagaatttg agaaccgca tgttaccagc  
 240

aacaacaaag gcacgggctg tgaattcgag ctatgggact gtggtggcga tgctaagttt  
300  
gagtcctgct ggccggccct gatgaaggat gctcatggag tggatgatcgt cttcaatgct  
360  
gacatcccaa gccaccggaa ggaaatggag atgtgggtatt cctgctttgt ccaacagccg  
420  
tccttacagg acacacagtg tatgctaatt gcacaccaca aaccaggctc tggagatgat  
480  
aaaggaagcc tgtctttgtc gccacccttg aacaagctga agctgggtgca ctcaaacctg  
540  
gaagatgacc ctgaggagat ccggatggaa ttcataaagt atttaaaaag cataatcaac  
600  
tccatgtctg agagcagaga caggaggagg atgtcaatta tgacctagcc agccttcacc  
660  
tggtgactgcc acatccccag tgaatcagc atgtttctcg gtgcagatct gaaatcacat  
720  
ccagctcctg atgttttctt ctccctctga ctgcagagga agtggttcta cctgcaggaa  
780  
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840  
gaaaaatccta ttatcaaatt tggatttctt ggccccagaa cttcccaaag acctgtaaaa  
900  
tggagggtt taccacctca catatgtcca gttaaacagt ttgtggactt gtaaccgtcg  
960  
cagcccaatg atacaacagt agtttaatca cgtgaaaaaa aaaa  
1004

&lt;210&gt; 5248

&lt;211&gt; 185

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5248

Met Leu Lys Ala Lys Ile Leu Phe Val Gly Pro Cys Glu Ser Gly Lys  
1 5 10 15  
Thr Val Leu Ala Asn Phe Leu Thr Glu Ser Ser Asp Ile Thr Glu Tyr  
20 25 30  
Ser Pro Thr Gln Gly Val Arg Ile Leu Glu Phe Glu Asn Pro His Val  
35 40 45  
Thr Ser Asn Asn Lys Gly Thr Gly Cys Glu Phe Glu Leu Trp Asp Cys  
50 55 60  
Gly Gly Asp Ala Lys Phe Glu Ser Cys Trp Pro Ala Leu Met Lys Asp  
65 70 75 80  
Ala His Gly Val Val Ile Val Phe Asn Ala Asp Ile Pro Ser His Arg  
85 90 95  
Lys Glu Met Glu Met Trp Tyr Ser Cys Phe Val Gln Gln Pro Ser Leu  
100 105 110  
Gln Asp Thr Gln Cys Met Leu Ile Ala His His Lys Pro Gly Ser Gly  
115 120 125  
Asp Asp Lys Gly Ser Leu Ser Leu Ser Pro Pro Leu Asn Lys Leu Lys  
130 135 140  
Leu Val His Ser Asn Leu Glu Asp Asp Pro Glu Glu Ile Arg Met Glu  
145 150 155 160  
Phe Ile Lys Tyr Leu Lys Ser Ile Ile Asn Ser Met Ser Glu Ser Arg



165 170 175  
 Asp Arg Glu Glu Met Ser Ile Met Thr  
 180 185  
 <210> 5249  
 <211> 653  
 <212> DNA  
 <213> Homo sapiens  
 <400> 5249  
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 taccggggct ggctagtcac gggggagccc agtagagagg agtataaaat ccagtccttt  
 120  
 gatgcagaga cccagcagct gctgaagaca gcactcaaag atccgggtgc tgtggacttg  
 180  
 gagaaagtgg ccaatgtgat tgtggaccat tctctgcagg actgtgtgtt cagcaaggaa  
 240  
 gcaggacgca tgtgtacgc catcattcag gcagagagta aacaagcagg ccagagtgtc  
 300  
 ttccgacgtg gactcctcaa ccggctgcag caggagtacc aggcctcgga gcagctgcga  
 360  
 gcacgctccc tgcagggtg ggtctgctat gtcaccttta tctgcaacat ctttgactac  
 420  
 ctgagggtga acaacatgcc catgatggcc ctggtgaacc ctgtctatga ctgcctcttc  
 480  
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 540  
 ctgcaccggg ttggggagca gctggagaaa atgaatgggc agcgcatgga tgagctcttt  
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 653

<210> 5250  
 <211> 217  
 <212> PRT  
 <213> Homo sapiens

<400> 5250  
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 1 5 10 15  
 Pro Val Lys Ser Tyr Arg Gly Trp Leu Val Met Gly Glu Pro Ser Arg  
 20 25 30  
 Glu Glu Tyr Lys Ile Gln Ser Phe Asp Ala Glu Thr Gln Gln Leu Leu  
 35 40 45  
 Lys Thr Ala Leu Lys Asp Pro Gly Ala Val Asp Leu Glu Lys Val Ala  
 50 55 60  
 Asn Val Ile Val Asp His Ser Leu Gln Asp Cys Val Phe Ser Lys Glu  
 65 70 75 80  
 Ala Gly Arg Met Cys Tyr Ala Ile Ile Gln Ala Glu Ser Lys Gln Ala  
 85 90 95  
 Gly Gln Ser Val Phe Arg Arg Gly Leu Leu Asn Arg Leu Gln Gln Glu  
 100 105 110  
 Tyr Gln Ala Arg Glu Gln Leu Arg Ala Arg Ser Leu Gln Gly Trp Val

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      115              120              125
Cys Tyr Val Thr Phe Ile Cys Asn Ile Phe Asp Tyr Leu Arg Val Asn
 130              135              140
Asn Met Pro Met Met Ala Leu Val Asn Pro Val Tyr Asp Cys Leu Phe
 145              150              155              160
Arg Leu Ala Gln Pro Asp Ser Leu Ser Lys Glu Glu Glu Val Asp Cys
      165              170              175
Leu Val Leu Gln Leu His Arg Val Gly Glu Gln Leu Glu Lys Met Asn
      180              185              190
Gly Gln Arg Met Asp Glu Leu Phe Val Leu Ile Arg Asp Gly Phe Leu
      195              200              205
Leu Pro Thr Gly Leu Ser Ser Leu Ala
 210              215

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<210> 5251  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

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<400> 5251
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caccacagcg ggacggcact tcattatgac gatgtcccg tcatcaacgg ctcgggggaa
120
ccggaagacg gctttctgct tttctgcagc agaagcttgg gagaagaagg ggcttttgaa
180
aaccacaggc tgtaagataa ctggccgcct ccgcacatct ttgcccgcta ctctcctgct
240
gacagaaagg cctctaggct gtctgctgac aagctgtcct ctaaccatta caaataccct
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tcgcagcctc ag
372

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<210> 5252  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

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<400> 5252
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Asn Gly Tyr Ala His Pro Ser Gly Thr Ala Leu His Tyr Asp Asp Val
      20              25              30
Pro Cys Ile Asn Gly Ser Gly Glu Pro Glu Asp Gly Phe Pro Ala Phe
      35              40              45
Cys Ser Arg Ser Leu Gly Glu Glu Gly Ala Phe Glu Asn Pro Gly Leu
      50              55              60
Tyr Asp Asn Trp Pro Pro His Ile Phe Ala Arg Tyr Ser Pro Ala
      65              70              75              80
Asp Arg Lys Ala Ser Arg Leu Ser Ala Asp Lys Leu Ser Ser Asn His
      85              90              95
Tyr Lys Tyr Pro Ala Ser Ala Gln Ser Val Thr Asn Thr Ser Ser Val

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100 105 110  
 Gly Arg Ala Ser Leu Gly Leu Asn Ser Gln Pro Gln  
 115 120

<210> 5253  
 <211> 898  
 <212> DNA  
 <213> Homo sapiens

<400> 5253  
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 120  
 tcatctcaat gccatccttg tggagagcca cagtgtagt caaggttcca tccaattcac  
 180  
 tgtggacaag gtcttgagc aacatcacca ggctgccaag gctcagcaga aactacaggc  
 240  
 ctcatctca gtggtgtga actccatcat gagtattctg actggaagca ctaggagcag  
 300  
 cttccgaaag atgtgtctcc agacccttca agcagctgac acacaagagt tcaggaccaa  
 360  
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 420  
 ggtgaagcag cagctaacc tagaaaaaaa ggactcagcc cagggcactg aggacgcacc  
 480  
 tgataacagc agcctggagc tcctagcaga taccagcggg caagcagaaa acaagaggct  
 540  
 caagaggggc agccccgc tagaggagat gcgagctctg cgctctgcca gggccccgag  
 600  
 cccgtcagag gccgccccgc gccgccccga agccaccgag cccccctca ctcttagagg  
 660  
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 720  
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 780  
 cagccctggg ccctgagccg ggtccccttc cgcaagcgcc caccgatccg gaggctgagg  
 840  
 gcagccgtta tcccgtggtt taataaagct gccgcgcgct caaaaaaaaa aaaaaaaaa  
 898

<210> 5254  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 5254  
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 Glu Ala Gln Glu Gly Gln Pro Pro His Arg Gly Asp Ala Ser Ser Ala  
 20 25 30  
 Leu Cys Gln Gly Pro Glu Pro Val Arg Gly Arg Pro Ala Pro Pro Gly  
 35 40 45  
 Ser His Arg Gly Pro Pro His Ser

50

55

&lt;210&gt; 5255

&lt;211&gt; 1410

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5255

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caaccccaga tccccatgcc tcgagccctg gatctccaag ctacgctgct ggattctgga  
120  
tgtcaacaaa cctcaccact ggatcctgac aaccacaatg cctggatcct ggggccccca  
180  
tcactggatc ccagatcccc tcactccacc cactggatcc ctgcattggt ttttggtttt  
240  
ttgttttttt ttaacctcga cactgggtct cagatccttc tgctgactgc cagatccctg  
300  
catttcaagc actacgcctt ccaccccag gcactggatc ccagattccc aagccttcac  
360  
ccaccagatt ctggctccta aaacaagtgc gggggcccca gtggcacagc aagtggatcc  
420  
tggcaactgc agctgctgga ttccagatcc tgggtcccca atccctctgc ccagtcctc  
480  
aatgttgaaa cctcatctct tgaaggcaga tcctgatatt ccaaggcact gaatcccaag  
540  
ccctgaatcc ccggtttctg atctgaatct tccaggcgcc ggggtccaaa tgttcaggcc  
600  
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<210> 5256  
<211> 95  
<212> PRT  
<213> Homo sapiens

<400> 5256  
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20 25 30  
Pro Pro Ser Pro Val Gly Lys Leu Phe Pro Gly Thr Thr Pro Leu Pro  
35 40 45  
Ala Ser Pro His Phe Thr Ala Ser Ser Ile Pro Leu Pro Pro Ser Arg  
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<210> 5257  
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<212> DNA  
<213> Homo sapiens

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<210> 5258

<211> 375

<212> PRT

<213> Homo sapiens

<400> 5258

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		20					25					30			
Ser	Tyr	Ser	Ala	Ser	Ala	Glu	Pro	Ala	Arg	Val	Arg	Gly	Leu	Val	Tyr
	35					40					45				
Gly	His	His	Gly	Asp	Pro	Ala	Lys	Val	Val	Glu	Leu	Lys	Asn	Leu	Glu
	50					55				60					
Leu	Ala	Ala	Val	Arg	Gly	Ser	Asp	Val	Arg	Val	Lys	Met	Leu	Ala	Ala
65				70					75					80	
Pro	Ile	Asn	Pro	Ser	Asp	Ile	Asn	Met	Ile	Gln	Gly	Asn	Tyr	Gly	Leu
		85					90					95			
Leu	Pro	Glu	Leu	Pro	Ala	Val	Gly	Gly	Asn	Glu	Gly	Val	Ala	Gln	Val
	100						105					110			
Val	Ala	Val	Gly	Ser	Asn	Val	Thr	Gly	Leu	Lys	Pro	Gly	Asp	Trp	Val
	115					120						125			
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145					150					155				160	
Gln	Ser	Ala	Ala	Thr	Leu	Gly	Val	Asn	Pro	Cys	Thr	Ala	Tyr	Arg	Met
		165						170					175		
Leu	Met	Asp	Phe	Glu	Gln	Leu	Gln	Pro	Gly	Asp	Ser	Val	Ile	Gln	Asn
	180							185				190			
Ala	Ser	Asn	Ser	Gly	Val	Gly	Gln	Ala	Val	Ile	Gln	Ile	Ala	Ala	Ala
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Leu	Gly	Leu	Arg	Thr	Ile	Asn	Val	Val	Arg	Asp	Arg	Pro	Asp	Ile	Gln

210		215		220
Lys Leu Ser Asp Arg	Leu Lys Ser Leu Gly	Ala Glu His Val Ile Thr		
225	230	235		240
Glu Glu Glu Leu Arg	Arg Pro Glu Met Lys	Asn Phe Phe Lys Asp Met		
	245	250		255
Pro Gln Pro Arg	Leu Ala Leu Asn Cys	Val Gly Gly Lys Ser Ser Thr		
	260	265		270
Glu Leu Leu Arg	Gln Leu Ala Arg	Gly Gly Thr Met Val Thr Tyr Gly		
	275	280		285
Gly Met Ala Lys	Gln Pro Val Val Ala Ser	Val Ser Leu Leu Ile Phe		
	290	295		300
Lys Asp Leu Lys Leu	Arg Gly Phe Trp Leu Ser	Gln Trp Lys Lys Asp		
305	310	315		320
His Ser Pro Asp	Gln Phe Lys Glu Leu Ile	Leu Thr Leu Cys Asp Leu		
	325	330		335
Ile Arg Arg Gly	Gln Leu Thr Ala Pro	Ala Cys Ser Gln Val Pro Leu		
	340	345		350
Gln Asp Tyr Gln	Ser Ala Leu Glu Ala Ser	Met Lys Pro Phe Ile Ser		
	355	360		365
Ser Lys Gln Ile Leu Thr Met				
370	375			

&lt;210&gt; 5259

&lt;211&gt; 306

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5259

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300  
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306

&lt;210&gt; 5260

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5260

Met Thr Glu Glu Lys Thr Leu Thr Ala Glu Gly Leu Val Lys Leu Leu
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Gln Ala Val Lys Thr Thr Phe Pro Asn Leu Gly Leu Leu Leu Glu Lys
20 25 30
Leu Gln Lys Ser Ala Thr Leu Pro Ser Thr Thr Val Gln Pro Ser Pro
35 40 45
Asp Asp Tyr Gly Thr Glu Leu Leu Arg Arg Tyr His Glu Asn Leu Ser

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 <211> 2394  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5262

&lt;211&gt; 275

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5262

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			20					25						30	
Gly	Lys	Gly	Arg	Phe	Leu	Val	Arg	Ile	Cys	Phe	Gln	Gly	Asp	Glu	Gly
			35				40					45			
Ala	Cys	Pro	Thr	Arg	Asp	Phe	Val	Val	Gly	Ala	Leu	Ile	Leu	Arg	Ser
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Ile Gly Met Asp Pro Ser Asp Ile Tyr Ala Val Ile Gln Ile Pro Gly
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85              90              95
Phe Leu Arg Val Tyr Glu Glu Lys Arg Glu Gln Glu Asp Cys Trp Glu
100             105             110
Asn Phe Val Val Leu Gly Arg Ser Lys Ser Ser Leu Lys Thr Leu Phe
115             120             125
Ile Leu Phe Arg Asn Glu Thr Val Asp Val Glu Asp Ile Val Thr Trp
130             135             140
Leu Lys Arg His Cys Asp Val Ser Leu Ala Val Pro Val Lys Val Thr Asp
145             150             155             160
Arg Phe Gly Ile Trp Thr Gly Glu Tyr Lys Cys Glu Ile Glu Leu Arg
165             170             175
Gln Gly Glu Gly Gly Val Arg His Leu Pro Gly Ala Phe Phe Leu Gly
180             185             190
Ala Glu Arg Gly Tyr Ser Trp Tyr Lys Gly Gln Pro Lys Thr Cys Phe
195             200             205
Lys Cys Gly Ser Arg Thr His Met Ser Gly Ser Cys Thr Gln Asp Arg
210             215             220
Cys Phe Arg Cys Gly Glu Glu Gly His Leu Ser Pro Tyr Cys Arg Lys
225             230             235             240
Gly Ile Val Cys Asn Leu Cys Gly Lys Arg Gly His Ala Phe Ala Gln
245             250             255
Cys Pro Lys Ala Val His Asn Ser Val Ala Ala Gln Leu Thr Gly Val
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<212> DNA
<213> Homo sapiens

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<212> PRT
<213> Homo sapiens

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<400> 5264

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		20					25					30			
Trp	His	Phe	Asn	Ile	Asn	Gln	Lys	Arg	Phe	Ser	Lys	Ala	Gln	Pro	Thr
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Cys	Phe	Leu	Leu	Ile	Leu	Pro	Pro	Cys	Gln	Lys	Ile	Met	Cys	Ile	Tyr
	50				55				60						
Phe	Gln	Leu	Leu	Leu	Met	Glu	Thr	Thr	Ala	Met	Leu	Asp	Leu	Leu	Val
65				70					75					80	
Ile	Arg	Gln	Leu	Lys	Ser	Ala	Leu	Ser	Gln	Thr	Leu	Leu	Cys	His	Leu
		85						90					95		
Leu	Ile	Leu	Val	Leu	Ile	Cys	Ser	Arg							
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&lt;210&gt; 5265

&lt;211&gt; 3203

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5265

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 3060  
 aaggacaaag gggagagctg ggacaaggcc ttgccccct cctgccatct cccaaccca  
 3120  
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 3180  
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 3203

<210> 5266

<211> 853

<212> PRT

<213> Homo sapiens

<400> 5266

Met	Gly	Thr	Pro	Arg	Ala	Gln	His	Pro	Pro	Pro	Gln	Leu	Leu	Phe
1				5				10				15		
Leu	Ile	Leu	Leu	Ser	Cys	Pro	Trp	Ile	Gln	Gly	Leu	Pro	Leu	Lys
			20					25				30		Glu
Glu	Glu	Ile	Leu	Pro	Glu	Pro	Gly	Ser	Glu	Thr	Pro	Thr	Val	Ala
			35				40					45		Ser
Glu	Ala	Leu	Ala	Glu	Leu	Leu	His	Gly	Ala	Leu	Leu	Arg	Arg	Gly
			50				55					60		Pro
Glu	Met	Gly	Tyr	Leu	Pro	Gly	Pro	Pro	Leu	Gly	Pro	Glu	Gly	Glu
65					70				75					80
Glu	Glu	Thr	Thr	Thr	Thr	Ile	Ile	Thr	Thr	Thr	Thr	Val	Thr	Thr
			85					90						95
Val	Thr	Ser	Pro	Val	Leu	Cys	Asn	Asn	Asn	Ile	Ser	Glu	Gly	Gly
			100					105					110	
Tyr	Val	Glu	Ser	Pro	Asp	Leu	Gly	Ser	Pro	Val	Ser	Arg	Thr	Leu
			115				120					125		Gly
Leu	Leu	Asp	Cys	Thr	Tyr	Ser	Ile	His	Val	Tyr	Pro	Gly	Tyr	Gly
			130				135					140		Ile
Glu	Ile	Gln	Val	Gln	Thr	Leu	Asn	Leu	Ser	Gln	Glu	Glu	Leu	Leu
145					150					155				160
Val	Leu	Ala	Gly	Gly	Gly	Ser	Pro	Gly	Leu	Ala	Pro	Arg	Leu	Leu
			165						170				175	Ala
Asn	Ser	Ser	Met	Leu	Gly	Glu	Gly	Gln	Val	Leu	Arg	Ser	Pro	Thr
			180					185				190		Asn
Arg	Leu	Leu	Leu	His	Phe	Gln	Ser	Pro	Arg	Val	Pro	Arg	Gly	Gly

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      195              200              205
Phe Arg Ile His Tyr Gln Ala Tyr Leu Leu Ser Cys Gly Phe Pro Pro
  210              215              220
Arg Pro Ala His Gly Asp Val Ser Val Thr Asp Leu His Pro Gly Gly
  225              230              235              240
Thr Ala Thr Phe His Cys Asp Ser Gly Tyr Gln Leu Gln Gly Glu Glu
      245              250              255
Thr Leu Ile Cys Leu Asn Gly Thr Arg Pro Ser Trp Asn Gly Glu Thr
  260              265              270
Pro Ser Cys Met Ala Ser Cys Gly Gly Thr Ile His Asn Ala Thr Leu
  275              280              285
Gly Arg Ile Val Ser Pro Glu Pro Gly Gly Ala Val Gly Pro Asn Leu
  290              295              300
Thr Cys Arg Trp Val Ile Glu Ala Ala Glu Gly Arg Arg Leu His Leu
  305              310              315              320
His Phe Glu Arg Val Ser Leu Asp Glu Asp Asn Asp Arg Leu Met Val
      325              330              335
Arg Ser Gly Gly Ser Pro Leu Ser Pro Val Ile Tyr Asp Ser Asp Met
  340              345              350
Asp Asp Val Pro Glu Arg Gly Leu Ile Ser Asp Ala Gln Ser Leu Tyr
  355              360              365
Val Glu Leu Leu Ser Glu Thr Pro Ala Asn Pro Leu Leu Ser Leu
  370              375              380
Arg Phe Glu Ala Phe Glu Glu Asp Arg Cys Phe Ala Pro Phe Leu Ala
  385              390              395              400
His Gly Asn Val Thr Thr Asp Pro Glu Tyr Arg Pro Gly Ala Leu
      405              410              415
Ala Thr Phe Ser Cys Leu Pro Gly Tyr Ala Leu Glu Pro Pro Gly Pro
  420              425              430
Pro Asn Ala Ile Glu Cys Val Asp Pro Thr Glu Pro His Trp Asn Asp
  435              440              445
Thr Glu Pro Ala Cys Lys Ala Met Cys Gly Gly Glu Leu Ser Glu Pro
  450              455              460
Ala Gly Val Val Leu Ser Pro Asp Trp Pro Gln Ser Tyr Ser Pro Gly
  465              470              475              480
Gln Asp Cys Val Trp Gly Val His Val Gln Glu Glu Lys Arg Ile Leu
      485              490              495
Leu Gln Val Glu Ile Leu Asn Val Arg Glu Gly Asp Met Leu Thr Leu
  500              505              510
Phe Asp Gly Asp Gly Pro Ser Ala Arg Val Leu Ala Gln Leu Arg Gly
  515              520              525
Pro Gln Pro Arg Arg Arg Leu Leu Ser Ser Gly Pro Asp Leu Thr Leu
  530              535              540
Gln Phe Gln Ala Pro Pro Gly Pro Pro Asn Pro Gly Leu Gly Gln Gly
  545              550              555              560
Phe Val Leu His Phe Lys Glu Val Pro Arg Asn Asp Thr Cys Pro Glu
      565              570              575
Leu Pro Pro Pro Glu Trp Gly Trp Arg Thr Ala Ser His Gly Asp Leu
  580              585              590
Ile Arg Gly Thr Val Leu Thr Tyr Gln Cys Glu Pro Gly Tyr Glu Leu
  595              600              605
Leu Gly Ser Asp Ile Leu Thr Cys Gln Trp Asp Leu Ser Trp Ser Ala
  610              615              620
Ala Pro Pro Ala Cys Gln Lys Ile Met Thr Cys Ala Asp Pro Gly Glu

```

625                      630                      635                      640  
 Ile Ala Asn Gly His Arg Thr Ala Ser Asp Ala Gly Phe Pro Val Gly  
                                  645                      650                      655  
 Ser His Val Gln Tyr Arg Cys Leu Pro Gly Tyr Ser Leu Glu Gly Ala  
                                  660                      665                      670  
 Ala Met Leu Thr Cys Tyr Ser Arg Asp Thr Gly Thr Pro Lys Trp Ser  
                                  675                      680                      685  
 Asp Arg Val Pro Lys Cys Ala Leu Lys Tyr Glu Pro Cys Leu Asn Pro  
                                  690                      695                      700  
 Gly Val Pro Glu Asn Gly Tyr Gln Thr Leu Tyr Lys His His Tyr Gln  
 705                                   710                                   715                                   720  
 Ala Gly Glu Ser Leu Arg Phe Phe Cys Tyr Glu Gly Phe Glu Leu Ile  
                                  725                                   730                                   735  
 Gly Glu Val Thr Ile Thr Cys Val Pro Gly His Pro Ser Gln Trp Thr  
                                  740                                   745                                   750  
 Ser Gln Pro Pro Leu Cys Lys Val Ala Tyr Glu Glu Leu Leu Asp Asn  
                                  755                                   760                                   765  
 Arg Lys Leu Glu Val Thr Gln Thr Thr Asp Pro Ser Arg Gln Leu Glu  
                                  770                                   775                                   780  
 Gly Gly Asn Leu Ala Leu Ala Ile Leu Leu Pro Leu Gly Leu Val Ile  
 785                                   790                                   795                                   800  
 Val Leu Gly Ser Gly Val Tyr Ile Tyr Tyr Thr Lys Leu Gln Gly Lys  
                                  805                                   810                                   815  
 Ser Leu Phe Gly Phe Ser Gly Ser His Ser Tyr Ser Pro Ile Thr Val  
                                  820                                   825                                   830  
 Glu Ser Asp Phe Ser Asn Pro Leu Tyr Glu Ala Gly Asp Thr Arg Glu  
                                  835                                   840                                   845  
 Tyr Glu Val Ser Ile  
 850

&lt;210&gt; 5267

&lt;211&gt; 885

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5267

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 60  
 gatcccccac caacctacct tggagctcct gtcttctatg cccccagac ctatgcagca  
 120  
 attcccagtc ttcatttccc agccacaaa ggacatctca gcaacagagc cattatccga  
 180  
 gccccttctg ttagagaaat ttacatgaat gtacctgtag gggctgcggg agtgagagga  
 240  
 ctgggcgggc gtggctattt ggcatacaca ggctggggtc gaggatacca ggtcaaagga  
 300  
 gacaaaagag aagacaaact ctatgacatt ttaacctggga tggagctcac cccaatgaat  
 360  
 cctgtcacat taaaacccca aggaattaaa ctgctcccc agatattaga agagatttgt  
 420  
 cagaaaaata actgggggaca gccagtgtac cagctgcact ctgctattgg acaagaccaa  
 480  
 agacagctat tcttgtacaa aataactatt cctgctctag ccagccagaa tcttgcaatc  
 540

caccctttca cacctccaaa gctgagtgcc tttgtggatg aagcaaagac gtatgcagcc  
 600  
 gaatacacc tgcagacct gggcatcccc actgatggag gcgatggcac catggctact  
 660  
 gctgctgctg ctgtactgc tttcccagga tatgctgtcc ctaatgcaac tgcaccctg  
 720  
 tctgcagccc agctcaagca agcggtaacc cttggacaag acttagcagc atatacaacc  
 780  
 tatgaggtct acccaacttt tgcagtgact gcccagggg atggatatgg caccttctga  
 840  
 agatgctttt ttaaatttaa gaataagaca caaaaactc tatta  
 885

<210> 5268

<211> 279

<212> PRT

<213> Homo sapiens

<400> 5268

Phe	Gly	Thr	Arg	Gly	Thr	Met	Leu	Gln	Gly	Glu	Tyr	Thr	Tyr	Ser	Leu
1				5					10					15	
Gly	Gln	Val	Tyr	Asp	Pro	Thr	Thr	Thr	Tyr	Leu	Gly	Ala	Pro	Val	Phe
			20					25					30		
Tyr	Ala	Pro	Gln	Thr	Tyr	Ala	Ala	Ile	Pro	Ser	Leu	His	Phe	Pro	Ala
			35				40					45			
Thr	Lys	Gly	His	Leu	Ser	Asn	Arg	Ala	Ile	Ile	Arg	Ala	Pro	Ser	Val
	50					55					60				
Arg	Glu	Ile	Tyr	Met	Asn	Val	Pro	Val	Gly	Ala	Ala	Gly	Val	Arg	Gly
65					70					75				80	
Leu	Gly	Gly	Arg	Gly	Tyr	Leu	Ala	Tyr	Thr	Gly	Leu	Gly	Arg	Gly	Tyr
			85					90						95	
Gln	Val	Lys	Gly	Asp	Lys	Arg	Glu	Asp	Lys	Leu	Tyr	Asp	Ile	Leu	Pro
			100					105					110		
Gly	Met	Glu	Leu	Thr	Pro	Met	Asn	Pro	Val	Thr	Leu	Lys	Pro	Gln	Gly
	115						120					125			
Ile	Lys	Leu	Ala	Pro	Gln	Ile	Leu	Glu	Glu	Ile	Cys	Gln	Lys	Asn	Asn
	130					135					140				
Trp	Gly	Gln	Pro	Val	Tyr	Gln	Leu	His	Ser	Ala	Ile	Gly	Gln	Asp	Gln
145					150					155				160	
Arg	Gln	Leu	Phe	Leu	Tyr	Lys	Ile	Thr	Ile	Pro	Ala	Leu	Ala	Ser	Gln
			165					170						175	
Asn	Pro	Ala	Ile	His	Pro	Phe	Thr	Pro	Pro	Lys	Leu	Ser	Ala	Phe	Val
		180						185					190		
Asp	Glu	Ala	Lys	Thr	Tyr	Ala	Ala	Glu	Tyr	Thr	Leu	Gln	Thr	Leu	Gly
	195					200						205			
Ile	Pro	Thr	Asp	Gly	Gly	Asp	Gly	Thr	Met	Ala	Thr	Ala	Ala	Ala	Ala
	210					215					220				
Ala	Thr	Ala	Phe	Pro	Gly	Tyr	Ala	Val	Pro	Asn	Ala	Thr	Ala	Pro	Val
225					230					235				240	
Ser	Ala	Ala	Gln	Leu	Lys	Gln	Ala	Val	Thr	Leu	Gly	Gln	Asp	Leu	Ala
			245					250						255	
Ala	Tyr	Thr	Thr	Tyr	Glu	Val	Tyr	Pro	Thr	Phe	Ala	Val	Thr	Ala	Arg
		260						265					270		
Gly	Asp	Gly	Tyr	Gly	Thr	Phe									



275

&lt;210&gt; 5269

&lt;211&gt; 1177

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5269

nngctttctc cagtggggat ttaagactta caggatttcc tcttatggaa tagttcctag  
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tctactagct caagtagtca ggagaataat tctgccc aaa gcagtctgct tccttccatg  
120  
aatgaacagt cacagaagac acaaaatata tccagctttg attctgagct gtttctagaa  
180  
gaactggatg aattgcctcc attgtctcca atgcagccaa tttcagagga agaggctatt  
240  
cagattattg cagacctccc attgccacca gcttcattca cacttcgaga ctatgtggat  
300  
cattctgaga ctctgcagaa gttggttctt ctaggcgtgg atttgtccaa gatagaaaaa  
360  
catccagaag cagcaaacct ccttctgaga ctggattttg aaaaagacat taagcaaatg  
420  
cttctgtttc ttaaagatgt gggatatagag gataaccaac tgggagcatt cctgacaaaa  
480  
aatcatgcaa ttttctctga agaccttgaa aatctgaaga ccagggtggc ttatctgcat  
540  
tcaaaaaatt tcagtaaaagc agatgttgca cagatgggtca gaaaagcacc atttttgctg  
600  
aacttttcag tggaaagact ggataacaga ttgggatttt ttcagaaaga acttgaactt  
660  
agtgtgaaga agactagaga tctggtagtt cgtctcccaa ggctgctaac tgggaagtctg  
720  
gaacccgtga aagaaaatat gaaggtttat cgtcttgaac ttgggtttta acataacgaa  
780  
attcaacata tgatcaccag aatcccaaag atgttaactg caaataaaat gaaacttacc  
840  
gagacgtttg attttgtgca caatgtgatg agcattcccc accacatcat tgtcaagttc  
900  
ccacaggtat ttaatacaag gctgtttaag gtcaaagaaa gacacttggt tcttacctat  
960  
ttaggaagag cacagtatga tccagcaaaa cctaactaca tctctttgga caaactagta  
1020  
tctattcctg atgaaatatt ttgtgaagag attgccaaag catcagtaca ggactttgaa  
1080  
aaattcttaa aaacgcttta gatttttatg tatgttaaaa tgcagtattg taaagtgaat  
1140  
atatatatga ataaatgaat atatttttaa aaaaaaa  
1177

&lt;210&gt; 5270

&lt;211&gt; 327

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5270

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Met Asn Glu Gln Ser Gln Lys Thr Gln Asn Ile Ser Ser Phe Asp Ser
 1           5           10           15
Glu Leu Phe Leu Glu Glu Leu Asp Glu Leu Pro Pro Leu Ser Pro Met
          20           25           30
Gln Pro Ile Ser Glu Glu Glu Ala Ile Gln Ile Ile Ala Asp Pro Pro
          35           40           45
Leu Pro Pro Ala Ser Phe Thr Leu Arg Asp Tyr Val Asp His Ser Glu
          50           55           60
Thr Leu Gln Lys Leu Val Leu Leu Gly Val Asp Leu Ser Lys Ile Glu
65           70           75           80
Lys His Pro Glu Ala Ala Asn Leu Leu Leu Arg Leu Asp Phe Glu Lys
          85           90           95
Asp Ile Lys Gln Met Leu Leu Phe Leu Lys Asp Val Gly Ile Glu Asp
          100          105          110
Asn Gln Leu Gly Ala Phe Leu Thr Lys Asn His Ala Ile Phe Ser Glu
          115          120          125
Asp Leu Glu Asn Leu Lys Thr Arg Val Ala Tyr Leu His Ser Lys Asn
          130          135          140
Phe Ser Lys Ala Asp Val Ala Gln Met Val Arg Lys Ala Pro Phe Leu
145          150          155          160
Leu Asn Phe Ser Val Glu Arg Leu Asp Asn Arg Leu Gly Phe Phe Gln
          165          170          175
Lys Glu Leu Glu Leu Ser Val Lys Lys Thr Arg Asp Leu Val Val Arg
          180          185          190
Leu Pro Arg Leu Leu Thr Gly Ser Leu Glu Pro Val Lys Glu Asn Met
          195          200          205
Lys Val Tyr Arg Leu Glu Leu Gly Phe Lys His Asn Glu Ile Gln His
          210          215          220
Met Ile Thr Arg Ile Pro Lys Met Leu Thr Ala Asn Lys Met Lys Leu
225          230          235          240
Thr Glu Thr Phe Asp Phe Val His Asn Val Met Ser Ile Pro His His
          245          250          255
Ile Ile Val Lys Phe Pro Gln Val Phe Asn Thr Arg Leu Phe Lys Val
          260          265          270
Lys Glu Arg His Leu Phe Leu Thr Tyr Leu Gly Arg Ala Gln Tyr Asp
          275          280          285
Pro Ala Lys Pro Asn Tyr Ile Ser Leu Asp Lys Leu Val Ser Ile Pro
          290          295          300
Asp Glu Ile Phe Cys Glu Glu Ile Ala Lys Ala Ser Val Gln Asp Phe
305          310          315          320
Glu Lys Phe Leu Lys Thr Leu
          325

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&lt;210&gt; 5271

&lt;211&gt; 1185

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5271

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60
atagatgaaa atcaggatcg ctacattaag cctgttcaac tgcagcagcc acagagggtg
120

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agcctggaat gtggcaacgt tacgggagcc tcttctccct caaggacacc ttttcagaat  
 180  
 ccctcgttgc ttcttgtcca caaacagaaa ctcgcaaaat ggggtgctat ccagagtgtg  
 240  
 tctgcgtggc cggagaagag aggcgaaatc aggaggatga tggaaagtgc tgctgcagat  
 300  
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 360  
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 420  
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 480  
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 540  
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 720  
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 780  
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 840  
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 900  
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 960  
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 1020  
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 1080  
 ccgtctctgt ccctccatgg catcgaaagg gccttctctg ggtctggggc caagaccgtg  
 1140  
 attcccaaaa aggtggttgg caagttctcc atcaggtctg tgccg  
 1185

&lt;210&gt; 5272

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5272

Met	Ala	Ala	Leu	Thr	Thr	Leu	Phe	Lys	Tyr	Ile	Asp	Glu	Asn	Gln	Asp
1			5						10					15	
Arg	Tyr	Ile	Lys	Pro	Val	Gln	Leu	Gln	Gln	Pro	Gln	Arg	Val	Ser	Leu
		20						25					30		
Glu	Cys	Gly	Asn	Val	Thr	Gly	Ala	Ser	Ser	Pro	Ser	Arg	Thr	Pro	Phe
		35					40					45			
Gln	Asn	Pro	Ser	Leu	Leu	Leu	Val	His	Lys	Gln	Lys	Leu	Ala	Lys	Trp
		50				55					60				
Val	Ala	Ile	Gln	Ser	Val	Ser	Ala	Trp	Pro	Glu	Lys	Arg	Gly	Glu	Ile
65					70					75				80	
Arg	Arg	Met	Met	Glu	Val	Ala	Ala	Ala	Asp	Val	Lys	Gln	Leu	Gly	Gly

85 90 95  
 Ser Val Glu Leu Val Asp Ile Gly Lys Gln Lys Leu Pro Asp Gly Ser  
 100 105 110  
 Glu Ile Pro Leu Pro Pro Ile Leu Leu Gly Arg Leu Gly Ser Asp Pro  
 115 120 125  
 Gln Lys Lys Thr Val Cys Ile Tyr Gly His Leu Asp Val Gln Pro Ala  
 130 135 140  
 Ala Leu Glu Asp Gly Trp Asp Ser Glu Pro Phe Thr Leu Val Glu Arg  
 145 150 155 160  
 Asp Gly Lys Leu Tyr Gly Arg Gly Ser Thr Asp Asp Lys Gly Pro Val  
 165 170 175  
 Ala Gly Trp Ile Asn Ala Leu Glu Ala Tyr Gln Lys Thr Gly Gln Glu  
 180 185 190  
 Ile Pro Val Asn Val Arg Phe Cys Leu Glu Gly Met Glu Glu Ser Gly  
 195 200 205  
 Ser Glu Gly Leu Asp Glu Leu Ile Phe Ala Arg Lys Asp Thr Phe Phe  
 210 215 220  
 Lys Asp Val Asp Tyr Val Cys Ile Ser Asp Asn Tyr Trp Leu Gly Lys  
 225 230 235 240  
 Lys Lys Pro Cys Ile Thr Tyr Gly Leu Arg Gly Ile Cys Tyr Phe Phe  
 245 250 255  
 Ile Glu Val Glu Cys Ser Asn Lys Asp Leu His Ser Gly Val Tyr Gly  
 260 265 270  
 Gly Ser Val His Glu Ala Met Thr Asp Leu Ile Leu Met Gly Ser  
 275 280 285  
 Leu Val Asp Lys Arg Gly Asn Ile Leu Ile Pro Gly Ile Asn Glu Ala  
 290 295 300  
 Val Ala Ala Val Thr Glu Glu His Lys Leu Tyr Asp Asp Ile Asp  
 305 310 315 320  
 Phe Asp Ile Glu Glu Phe Ala Lys Asp Val Gly Ala Gln Ile Leu Leu  
 325 330 335  
 His Ser His Lys Lys Asp Ile Leu Met His Arg Trp Arg Tyr Pro Ser  
 340 345 350  
 Leu Ser Leu His Gly Ile Glu Gly Ala Phe Ser Gly Ser Gly Ala Lys  
 355 360 365  
 Thr Val Ile Pro Lys Lys Val Val Gly Lys Phe Ser Ile Arg Leu Val  
 370 375 380  
 Pro  
 385

&lt;210&gt; 5273

&lt;211&gt; 4580

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5273

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 60  
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 180  
 ctgggcaaca agagtgaac tccatctttc ttttgagcca aagcctgggc aatgaagtcg  
 240

gcagcccttt caaagtaagc gctgaggttg aactcctgtg tgcgttggc cttgatgcc  
300  
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360  
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420  
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480  
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540  
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600  
gctgagggca ggtccttcat gcacgtcaac accaatgcca acttctacaa ggactccggc  
660  
atcacatacc tgggcatcaa ggccaacgac acacaggagt tcaacctcag cgcttacttt  
720  
gaaagggctg ccgacttcat tgaccaggct ttggctcaaa agaattggcg ggtgctcgtc  
780  
cactgccggg aaggttatag ccgctcccca acgctagtta tcgctacct catgatgcgg  
840  
cagaagatgg acgtcaagtc tgccctgagc atcgtgaggc agaaccgtga gatcggcccc  
900  
aacgatggct tcctggccca gctctgccag ctcaatgaca gactagccaa ggaggggaag  
960  
ttgaaaccct agggcacccc caccgcctct gctcgagagg tccgtggggg aggcggtggg  
1020  
caaagggtgc ccgagctgcc atgttttaga aacacactgt accctgctcc cagcatcaca  
1080  
aggcacttgt ctacaagtgt gtcccaacac agtcctgggc cactttcccc accctgggga  
1140  
gcacataaag aagcttgcca agggggggcg ccttgcctcc cagtgtcct gtttctgtaa  
1200  
cttatgatgt cttttccctg agatgggggc tcagaggggg aaggcctgtg gcctgcatgc  
1260  
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1320  
tccctcatga cctcccttcc ccaactcccg aatcctctct tgagtgtgga cctcaacacc  
1380  
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1440  
cgactgtcc ccacagcctt ccacaccctg tgcataggca gccctctcac gtcttgaggt  
1500  
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1560  
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1800  
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1860

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1920  
aacagaagga ggaagtggc caattacagc gtgtgtgcat ggatgtgtgt ggggggcgtg  
1980  
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2040  
gcccatgca ggtggctctt acagctctct ggtgccagca cgggatccct gaagtgactc  
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2160  
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2220  
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2280  
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2400  
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2760  
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3180  
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3360  
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 4380  
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 4560  
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 4580

&lt;210&gt; 5274

&lt;211&gt; 185

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5274

Met	Ser	Gly	Ser	Phe	Glu	Leu	Ser	Val	Gln	Asp	Leu	Asn	Asp	Leu	Leu
1				5					10					15	
Ser	Asp	Gly	Ser	Gly	Cys	Tyr	Ser	Leu	Pro	Ser	Gln	Pro	Cys	Asn	Glu
		20						25					30		
Val	Thr	Pro	Arg	Ile	Tyr	Val	Gly	Asn	Ala	Ser	Val	Ala	Gln	Asp	Ile
		35				40					45				
Pro	Lys	Leu	Gln	Lys	Leu	Gly	Ile	Thr	His	Val	Leu	Asn	Ala	Ala	Glu
	50				55					60					
Gly	Arg	Ser	Phe	Met	His	Val	Asn	Thr	Asn	Ala	Asn	Phe	Tyr	Lys	Asp

```

65          70          75          80
Ser Gly Ile Thr Tyr Leu Gly Ile Lys Ala Asn Asp Thr Gln Glu Phe
          85          90          95
Asn Leu Ser Ala Tyr Phe Glu Arg Ala Ala Asp Phe Ile Asp Gln Ala
          100          105          110
Leu Ala Gln Lys Asn Gly Arg Val Leu Val His Cys Arg Glu Gly Tyr
          115          120          125
Ser Arg Ser Pro Thr Leu Val Ile Ala Tyr Leu Met Met Arg Gln Lys
          130          135          140
Met Asp Val Lys Ser Ala Leu Ser Ile Val Arg Gln Asn Arg Glu Ile
          145          150          155          160
Gly Pro Asn Asp Gly Phe Leu Ala Gln Leu Cys Gln Leu Asn Asp Arg
          165          170          175
Leu Ala Lys Glu Gly Lys Leu Lys Pro
          180          185

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<210> 5275  
 <211> 810  
 <212> DNA  
 <213> Homo sapiens

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<400> 5275
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120
atgtcctgca tctaacycgg tgtgaccccc gaagccgagc gagctccgga ggaatttcag
180
tatctgctac ggtaacttca tcagcccgcc aagatggcga tgcaagcggc caagagggcg
240
aacattcgac ttccacctga agtaaatcgg atattgtata taagaaattt gccatacaaa
300
atcacagctg aagaaatgta tgatatattt gggaaatatg gacctattcg tcaaatacaga
360
gtggggaaca cacctgaaac tagaggaaca gcttatgttg tctatgagga catctttgat
420
gccaagaatg catgtgatca cctatcgga ttcaatgttt gtaacagata ccttgtggtt
480
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540
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600
acattttcat ttggactaaa tcccacgaat gacaactacc accttttttt cctttttaat
660
taatactaaa tattgtgatt tcttatttga ggttcaaaat gacctgcttg aaactttgat
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780
tcgacgcggc cggcaattta gtagtagtag
810

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<210> 5276  
 <211> 125  
 <212> PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 5276

```

Met Ala Met Gln Ala Ala Lys Arg Ala Asn Ile Arg Leu Pro Pro Glu
 1           5           10           15
Val Asn Arg Ile Leu Tyr Ile Arg Asn Leu Pro Tyr Lys Ile Thr Ala
 20           25           30
Glu Glu Met Tyr Asp Ile Phe Gly Lys Tyr Gly Pro Ile Arg Gln Ile
 35           40           45
Arg Val Gly Asn Thr Pro Glu Thr Arg Gly Thr Ala Tyr Val Val Tyr
 50           55           60
Glu Asp Ile Phe Asp Ala Lys Asn Ala Cys Asp His Leu Ser Gly Phe
 65           70           75           80
Asn Val Cys Asn Arg Tyr Leu Val Val Leu Tyr Tyr Asn Ala Asn Arg
 85           90           95
Ala Phe Gln Lys Met Asp Thr Lys Lys Lys Glu Glu Gln Leu Lys Leu
100           105           110
Leu Lys Glu Lys Tyr Gly Ile Asn Thr Asp Pro Pro Lys
115           120           125

```

&lt;210&gt; 5277

&lt;211&gt; 612

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5277

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atctacgact tcattgatga cccgaagccc cacaagaagc tgggcccgcg gccctggctg
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gtggcgccca tcacggccac ggagctgctc atcgtggtga agtacgaccc ccacacgctc
120
accctgtccc tgccttctca catctcccag tgctggaccc tcgggtccgt cctggcgctc
180
acctggaccg tctggcgctt ctctctgcgg gacatcacat tgaggtacaa ggagaccggg
240
tggcagaagt ggcagaacaa gcatgaccag ggcagcaccg tcggcaacgg ggaccagcac
300
ccactggggc tggacgaaga cctgctgggg cctgggggtgg ccgagggcga gggagcacca
360
actccaaact gacctgggac gtggtgcctt cgtgagcctc ccagagccca ggctccgtg
420
gcctctcctt gtgtgagtc caccaggagc cactgcccgc gccttgccct caaggttttt
480
tgcttttctc ctgtgcacct ggcgaggctg aaggcgaggg gtggaggagg cccagcaca
540
gcctcatctc catgtgtaca cgtgtgtacg tgtgtatgcg tgtgtgtacg tgtgtatgcg
600
tgtgtgtacg tg
612

```

&lt;210&gt; 5278

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5278

```

Ile Tyr Asp Phe Met Asp Asp Pro Lys Pro His Lys Lys Leu Gly Pro
 1           5           10           15
Gln Ala Trp Leu Val Ala Ala Ile Thr Ala Thr Glu Leu Leu Ile Val
 20           25           30
Val Lys Tyr Asp Pro His Thr Leu Thr Leu Ser Leu Pro Phe Tyr Ile
 35           40           45
Ser Gln Cys Trp Thr Leu Gly Ser Val Leu Ala Leu Thr Trp Thr Val
 50           55           60
Trp Arg Phe Phe Leu Arg Asp Ile Thr Leu Arg Tyr Lys Glu Thr Arg
 65           70           75           80
Trp Gln Lys Trp Gln Asn Lys Asp Asp Gln Gly Ser Thr Val Gly Asn
 85           90           95
Gly Asp Gln His Pro Leu Gly Leu Asp Glu Asp Leu Leu Gly Pro Gly
 100          105          110
Val Ala Glu Gly Glu Gly Ala Pro Thr Pro Asn
 115          120

```

&lt;210&gt; 5279

&lt;211&gt; 1225

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5279

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atcaatggag cagaggagaa aattctagaa gatttccgaa aaaccacag ccctgatgcc
60
cctgactttc agctgcaggc catgattcag gcagcaggaa agcttggtgtt gattgataaa
120
ctactcccta agctgattgc aggtggccac aaagtactca tcttctccca gatggtgcgc
180
tgccctgaca tcctagaaga ttatttaatc cagagaagat acacctatga acgtattgat
240
gggcgagtac ggggaaacct gcgccaggct gccatcgacc gcttcagcaa gcctgactca
300
gaccgctttg tcttcttact gtgcaccaga gcgggaggcc tggggatcaa tctcacagct
360
gctgatacct gcacatatt tgattctgac tggaaccac aaaatgactt gcaggctcag
420
gcccgatgtc accgcatagg ccagagcaaa gctgtgaagg tgtatcgct catcactga
480
aattcctacg agcgcgagat gtttgacaag gccagcctaa agctggggct ggacaaggct
540
gttcttcaga catcaaccga aaggcgcgca ccaatgggta cagcactctc aaaaatggag
600
gtggaggacc tactccggaa aggtgcttat ggagccttaa tggatgaaga agatgaaggc
660
tccaagttct gtgaagaaga catagaccag attctgcaga ggcgaaacga caccatcacc
720
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780
agaacagata tttccttaga tgatcctaac ttttggcaga aatgggctaa aatagctgaa
840
ctagacactg aagcaaagaa tgaaaaggaa agcttagtga tcgaccgacc tcgctgaga
900

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aagcagacca aacactacaa ctctgtttgag gaagacgagc tcatggagtt ttcagagtta  
960  
gacagcgact cagacgaaag gcccacgaga tccaggcgcc tcaatgacaa agccaggcgc  
1020  
tacctccgag cggagtgcct cccggtagag aagaacctgc tcattcttgg ctggggccgg  
1080  
tggaaggaca tcttgactca tggccgattc aagtggcatc tgaacgagaa ggacatggag  
1140  
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1225

<210> 5280

<211> 408

<212> PRT

<213> Homo sapiens

<400> 5280

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Ser	Pro	Asp	Ala	Pro	Asp	Phe	Gln	Leu	Gln	Ala	Met	Ile	Gln	Ala	Ala
			20					25					30		
Gly	Lys	Leu	Val	Leu	Ile	Asp	Lys	Leu	Leu	Pro	Lys	Leu	Ile	Ala	Gly
		35					40					45			
Gly	His	Lys	Val	Leu	Ile	Phe	Ser	Gln	Met	Val	Arg	Cys	Leu	Asp	Ile
	50					55					60				
Leu	Glu	Asp	Tyr	Leu	Ile	Gln	Arg	Arg	Tyr	Thr	Tyr	Glu	Arg	Ile	Asp
65					70				75					80	
Gly	Arg	Val	Arg	Gly	Asn	Leu	Arg	Gln	Ala	Ala	Ile	Asp	Arg	Phe	Ser
			85					90					95		
Lys	Pro	Asp	Ser	Asp	Arg	Phe	Val	Phe	Leu	Leu	Cys	Thr	Arg	Ala	Gly
		100					105						110		
Gly	Leu	Gly	Ile	Asn	Leu	Thr	Ala	Ala	Asp	Thr	Cys	Ile	Ile	Phe	Asp
		115					120					125			
Ser	Asp	Trp	Asn	Pro	Gln	Asn	Asp	Leu	Gln	Ala	Gln	Ala	Arg	Cys	His
	130					135					140				
Arg	Ile	Gly	Gln	Ser	Lys	Ala	Val	Lys	Val	Tyr	Arg	Leu	Ile	Thr	Arg
145					150					155				160	
Asn	Ser	Tyr	Glu	Arg	Glu	Met	Phe	Asp	Lys	Ala	Ser	Leu	Lys	Leu	Gly
			165					170					175		
Leu	Asp	Lys	Ala	Val	Leu	Gln	Thr	Ser	Thr	Glu	Arg	Ala	Ala	Pro	Met
		180					185						190		
Gly	Thr	Ala	Leu	Ser	Lys	Met	Glu	Val	Glu	Asp	Leu	Leu	Arg	Lys	Gly
	195						200					205			
Ala	Tyr	Gly	Ala	Leu	Met	Asp	Glu	Glu	Asp	Glu	Gly	Ser	Lys	Phe	Cys
	210				215					220					
Glu	Glu	Asp	Ile	Asp	Gln	Ile	Leu	Gln	Arg	Arg	Thr	His	Thr	Ile	Thr
225					230					235				240	
Ile	Gln	Ser	Glu	Gly	Lys	Gly	Ser	Thr	Phe	Ala	Lys	Ala	Ser	Phe	Val
			245					250					255		
Ala	Ser	Gly	Asn	Arg	Thr	Asp	Ile	Ser	Leu	Asp	Asp	Pro	Asn	Phe	Trp
	260						265					270			
Gln	Lys	Trp	Ala	Lys	Ile	Ala	Glu	Leu	Asp	Thr	Glu	Ala	Lys	Asn	Glu

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      275      280      285
Lys Glu Ser Leu Val Ile Asp Arg Pro Arg Val Arg Lys Gln Thr Lys
 290      295      300
His Tyr Asn Ser Phe Glu Glu Asp Glu Leu Met Glu Phe Ser Glu Leu
 305      310      315      320
Asp Ser Asp Ser Asp Glu Arg Pro Thr Arg Ser Arg Arg Leu Asn Asp
      325      330      335
Lys Ala Arg Arg Tyr Leu Arg Ala Glu Cys Phe Arg Val Glu Lys Asn
      340      345      350
Leu Leu Ile Phe Gly Trp Gly Arg Trp Lys Asp Ile Leu Thr His Gly
      355      360      365
Arg Phe Lys Trp His Leu Asn Glu Lys Asp Met Glu Met Ile Cys Arg
      370      375      380
Ala Leu Leu Val Tyr Cys Val Lys His Tyr Lys Gly Asp Glu Lys Ile
 385      390      395      400
Lys Ser Phe Ile Trp Glu Leu Ile
      405

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<210> 5281  
 <211> 336  
 <212> DNA  
 <213> Homo sapiens

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<400> 5281
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120
aggcattcct ggtactcaca ggtctgacag ccacagttgg agacacagct atttcttcag
180
aagagaaaac acaacgcattg tcattaatga gacatcacat gggacaatca ttgtccaaag
240
aagttgcaca tgtcttcacc aaacctggag cagatcacga ttgggaaaaac ctagagaaag
300
acttgagatt gctcattaat ggggattatg aagaag
336

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<210> 5282  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

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<400> 5282
Met Gln Thr Ala Gln Asn Lys Tyr Gln Glu Leu Lys Asn Ile Cys Ser
 1      5      10      15
Tyr Arg Ala Gln Ala Phe Leu Val Leu Thr Gly Leu Thr Ala Thr Val
      20      25      30
Gly Asp Thr Ala Ile Ser Ser Glu Glu Lys Thr Gln Arg Met Ser Leu
      35      40      45
Met Arg His His Met Gly Gln Ser Leu Ser Lys Glu Val Ala His Val
      50      55      60
Leu Thr Lys Pro Gly Ala Asp His Asp Trp Glu Asn Leu Glu Lys Asp
      65      70      75      80
Leu Arg Leu Leu Ile Asn Gly Asp Tyr Glu Glu

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85

90

<210> 5283  
<211> 1989  
<212> DNA  
<213> Homo sapiens

<400> 5283  
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ggcaagtgt acctacattc ccagcccacc agcctgacgc ccagccaggg agagagtacc  
120  
atggatggca tcattgaaca gaagagcatg ctggtgcaca gtaaaatcag tgatgctggc  
180  
aagaggaatg gtttaattaa caccagaaac ttgatggccg agagcagaga tggctctggtg  
240  
tctgtttacc cagcgcccca gtaccagagc caccgggtgg gggccagcac agtgccggcc  
300  
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360  
cagtcaagg agtcccgcta cgggccaac atcatcctct attcagaggg cgtgctgcgc  
420  
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480  
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660  
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720  
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780  
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840  
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960  
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1020  
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1140  
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1200  
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1260  
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1320  
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1380

4452

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 1800  
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 1860  
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 1920  
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 1980  
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 1989

&lt;210&gt; 5284

&lt;211&gt; 258

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5284

Met	Asp	Gly	Ile	Ile	Glu	Gln	Lys	Ser	Met	Leu	Val	His	Ser	Lys	Ile
1			5					10					15		
Ser	Asp	Ala	Gly	Lys	Arg	Asn	Gly	Leu	Ile	Asn	Thr	Arg	Asn	Leu	Met
		20					25					30			
Ala	Glu	Ser	Arg	Asp	Gly	Leu	Val	Ser	Val	Tyr	Pro	Ala	Pro	Gln	Tyr
		35				40					45				
Gln	Ser	His	Arg	Val	Gly	Ala	Ser	Thr	Val	Pro	Ala	Ser	Leu	Asp	Ser
	50				55					60					
Ser	Arg	Ser	Glu	Pro	Met	Gln	Gln	Leu	Leu	Asp	Pro	Asn	Thr	Leu	Gln
65				70					75					80	
Gln	Ser	Val	Glu	Ser	Arg	Tyr	Arg	Pro	Asn	Ile	Ile	Leu	Tyr	Ser	Glu
			85					90					95		
Gly	Val	Leu	Arg	Ser	Trp	Gly	Asp	Gly	Val	Ala	Ala	Asp	Cys	Cys	Glu
		100				105						110			
Thr	Thr	Phe	Ile	Glu	Asp	Arg	Ser	Pro	Thr	Lys	Asp	Ser	Leu	Glu	Tyr
		115				120						125			
Pro	Asp	Gly	Lys	Phe	Ile	Asp	Leu	Ser	Ala	Asp	Asp	Ile	Lys	Ile	His
		130				135					140				
Thr	Leu	Ser	Tyr	Asp	Val	Glu	Glu	Glu	Glu	Phe	Gln	Glu	Leu	Glu	
145				150					155					160	
Ser	Asp	Tyr	Ser	Ser	Asp	Thr	Glu	Ser	Glu	Asp	Asn	Phe	Leu	Met	Met
			165				170							175	
Pro	Pro	Arg	Asp	His	Leu	Gly	Leu	Ser	Val	Phe	Ser	Met	Leu	Cys	Cys
			180				185						190		
Phe	Trp	Pro	Leu	Gly	Ile	Ala	Ala	Phe	Tyr	Leu	Ser	His	Glu	Thr	Asn

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<210> 5285
<211> 2155
<212> DNA
<213> Homo sapiens
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4454

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 1320  
 gtactcatct ttgcagagaa gaaggcagac gtggacgcca tccacgagta cctgtgtctc  
 1380  
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 1440  
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 1560  
 aactatgtac accggattgg ccgcaccggg cgctcgggaa acacaggcat cgccattacc  
 1620  
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 2155

&lt;210&gt; 5286

&lt;211&gt; 628

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5286

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 Ala Arg Thr Asp Glu Val Pro Ala Gly Gly Ser Arg Ser Glu Ala Glu  
 20 25 30  
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 35 40 45  
 Arg Gln Leu Leu Gln Lys Leu Leu Gln Arg Arg Arg Lys Gly Ala  
 50 55 60  
 Ala Glu Glu Glu Gln Gln Asp Ser Gly Ser Glu Pro Arg Gly Asp Glu  
 65 70 75 80  
 Asp Asp Ile Pro Leu Gly Pro Gln Ser Asn Val Ser Leu Leu Asp Gln  
 85 90 95  
 His Gln His Leu Lys Glu Lys Ala Glu Ala Arg Lys Glu Ser Ala Lys



100 105 110  
 Glu Lys Gln Leu Lys Glu Glu Glu Lys Ile Leu Glu Ser Val Ala Glu  
 115 120 125  
 Gly Arg Ala Leu Met Ser Val Lys Glu Met Ala Lys Gly Ile Thr Tyr  
 130 135 140  
 Asp Asp Pro Ile Lys Thr Ser Trp Thr Pro Pro Arg Tyr Val Leu Ser  
 145 150 155 160  
 Met Ser Glu Glu Arg His Glu Arg Val Arg Lys Lys Tyr His Ile Leu  
 165 170 175  
 Val Glu Gly Asp Gly Ile Pro Pro Pro Ile Lys Ser Phe Lys Glu Met  
 180 185 190  
 Lys Phe Pro Ala Ala Ile Leu Arg Gly Leu Lys Lys Lys Gly Ile His  
 195 200 205  
 His Pro Thr Pro Ile Gln Ile Gln Gly Ile Pro Thr Ile Leu Ser Gly  
 210 215 220  
 Arg Asp Met Ile Gly Ile Ala Phe Thr Gly Ser Gly Lys Thr Leu Val  
 225 230 235 240  
 Phe Thr Leu Pro Val Ile Met Phe Cys Leu Glu Gln Glu Lys Arg Leu  
 245 250 255  
 Pro Phe Ser Lys Arg Glu Gly Pro Tyr Gly Leu Ile Ile Cys Pro Ser  
 260 265 270  
 Arg Glu Leu Ala Arg Gln Thr His Gly Ile Leu Glu Tyr Tyr Cys Arg  
 275 280 285  
 Leu Leu Gln Glu Asp Ser Ser Pro Leu Leu Arg Cys Ala Leu Cys Ile  
 290 295 300  
 Gly Gly Met Ser Val Lys Glu Gln Met Glu Thr Ile Arg His Gly Val  
 305 310 315 320  
 His Met Met Val Ala Thr Pro Gly Arg Leu Met Asp Leu Leu Gln Lys  
 325 330 335  
 Lys Met Val Ser Leu Asp Ile Cys Arg Tyr Leu Ala Leu Asp Glu Ala  
 340 345 350  
 Asp Arg Met Ile Asp Met Gly Phe Glu Gly Asp Ile Arg Thr Ile Phe  
 355 360 365  
 Ser Tyr Phe Lys Gly Gln Arg Gln Thr Leu Leu Phe Ser Ala Thr Met  
 370 375 380  
 Pro Lys Lys Ile Gln Asn Phe Ala Lys Ser Ala Leu Val Lys Pro Val  
 385 390 395 400  
 Thr Ile Asn Val Gly Arg Ala Gly Ala Ala Ser Leu Asp Val Ile Gln  
 405 410 415  
 Glu Val Glu Tyr Val Lys Glu Glu Ala Lys Met Val Tyr Leu Leu Glu  
 420 425 430  
 Cys Leu Gln Lys Thr Pro Pro Pro Val Leu Ile Phe Ala Glu Lys Lys  
 435 440 445  
 Ala Asp Val Asp Ala Ile His Glu Tyr Leu Leu Leu Lys Gly Val Glu  
 450 455 460  
 Ala Val Ala Ile His Gly Gly Lys Asp Gln Glu Glu Arg Thr Lys Ala  
 465 470 475 480  
 Ile Glu Ala Phe Arg Glu Gly Lys Lys Asp Val Leu Val Ala Thr Asp  
 485 490 495  
 Val Ala Ser Lys Gly Leu Asp Phe Pro Ala Ile Gln His Val Ile Asn  
 500 505 510  
 Tyr Asp Met Pro Glu Glu Ile Glu Asn Tyr Val His Arg Ile Gly Arg  
 515 520 525  
 Thr Gly Arg Ser Gly Asn Thr Gly Ile Ala Thr Thr Phe Ile Asn Lys

530                      535                      540  
 Ala Cys Asp Glu Ser Val Leu Met Asp Leu Lys Ala Leu Leu Leu Glu  
 545                      550                      555                      560  
 Ala Lys Gln Lys Val Pro Val Leu Gln Val Leu His Cys Gly Asp  
 565                      570                      575  
 Glu Ser Met Leu Asp Ile Gly Gly Glu Arg Gly Cys Ala Phe Cys Gly  
 580                      585                      590  
 Gly Leu Gly His Arg Ile Thr Asp Cys Pro Lys Leu Glu Ala Met Gln  
 595                      600                      605  
 Thr Lys Gln Val Ser Asn Ile Gly Arg Lys Asp Tyr Leu Ala His Ser  
 610                      615                      620  
 Ser Met Asp Phe  
 625

<210> 5287  
 <211> 581  
 <212> DNA  
 <213> Homo sapiens

<400> 5287  
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 120  
 tcgggagcgg agttgcagaa tccaaggacc cattttgttc ttctccgca ctgctttatg  
 180  
 ggaggcatta tggcccccaa agacataatg acaaatactc atgctaaatc catcctcaat  
 240  
 tcaatgaact ccctcaggaa gagcaatacc ctctgtgatg tgacattgag agtagagcag  
 300  
 aaagacttcc ctgcccatcg gattgtgctg gctgcctgta gtgattactt ctgtgccatg  
 360  
 ttacttagtg agctctcaga gaaggggaaa ccttatgttg acatccaagg ttgactgcc  
 420  
 tctaccatgg aaattttatt ggactttgtg tacacagaaa cgggtacatgt gacagtggag  
 480  
 aatgtacaag aactgcttcc tgcagcctgt ctgcttcagt tgaaaggtgt gaaacaagcc  
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 581

<210> 5288  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

<400> 5288  
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 Glu Pro Pro Ala Ser Pro Ala Pro His Ser Ile Pro Thr Gly Trp Gly  
 20                      25                      30  
 Arg Ala Arg Cys Gly Cys Val Gly Ser Gly Ala Glu Leu Gln Asn Pro  
 35                      40                      45  
 Arg Thr His Phe Val Leu Ser Pro His Cys Phe Met Gly Gly Ile Met

50                      55                      60  
 Ala Pro Lys Asp Ile Met Thr Asn Thr His Ala Lys Ser Ile Leu Asn  
 65                      70                      75                      80  
 Ser Met Asn Ser Leu Arg Lys Ser Asn Thr Leu Cys Asp Val Thr Leu  
                     85                      90                      95  
 Arg Val Glu Gln Lys Asp Phe Pro Ala His Arg Ile Val Leu Ala Ala  
                     100                      105                      110  
 Cys Ser Asp Tyr Phe Cys Ala Met Phe Thr Ser Glu Leu Ser Glu Lys  
                     115                      120                      125  
 Gly Lys Pro Tyr Val Asp Ile Gln Gly Leu Thr Ala Ser Thr Met Glu  
                     130                      135                      140  
 Ile Leu Leu Asp Phe Val Tyr Thr Glu Thr Val His Val Thr Val Glu  
 145                      150                      155                      160  
 Asn Val Gln Glu Leu Leu Pro Ala Ala Cys Leu Leu Gln Leu Lys Gly  
                     165                      170                      175  
 Val Lys Gln Ala Cys Cys Glu Phe Leu Glu Ser Gln Leu Asp Pro Ser  
                     180                      185                      190  
 Arg

<210> 5289  
 <211> 361  
 <212> DNA  
 <213> Homo sapiens

<400> 5289  
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 120  
 caatgaggat actgcttcag cttctgaagg ggaagtatat gatagggtcc tgaagaaact  
 180  
 tattttgatc ggggctacat taaaaaagaa attagaacat ggacttacac gaatatggca  
 240  
 ggatgttcag ctaaaagtaa aaacctactt gcttggaact gatttgtcta tattcaaata  
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 c  
 361

<210> 5290  
 <211> 95  
 <212> PRT  
 <213> Homo sapiens

<400> 5290  
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 Glu Asp Thr Ala Ser Ala Ser Glu Gly Glu Val Tyr Asp Arg Val Leu  
                     20                      25                      30  
 Lys Lys Leu Ile Leu Ile Gly Ala Thr Leu Lys Lys Lys Leu Glu His  
                     35                      40                      45  
 Gly Leu Thr Arg Ile Trp Gln Asp Val Gln Leu Lys Val Lys Thr Tyr

50		55		60											
Leu	Leu	Gly	Thr	Asp	Leu	Ser	Ile	Phe	Lys	Tyr	Asp	Asp	Phe	Ile	Phe
65					70					75					80
Val	Leu	Asp	Ile	Ile	Ser	Arg	Leu	Met	Gln	Val	Gly	Glu	Glu	Phe	
					85					90					95

<210> 5291  
 <211> 767  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 180  
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 240  
 aacttgctg ccacctgccc ttaccacccc atggtggctt ctgtggctgg tgggtccaa  
 300  
 gcagggtctg atggggagag caggggctgg agtggaggca gggggcagcc ccaccaggc  
 360  
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 420  
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 agagggccac ctctgtggg gcacacagac acaggcagag acatgcgagg gcacgcacgc  
 660  
 atgcacagag aaaccactcc cacagagaca ggccacatgg aggagagacc agagagaaaa  
 720  
 cagagacaca ggcagataga caaacacag ggagagaggg gacgcgt  
 767

<210> 5292  
 <211> 142  
 <212> PRT  
 <213> Homo sapiens

<400> 5292  
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 20 25 30  
 Thr Pro Val Leu Pro Pro Thr Leu Pro Ala Thr Cys Arg Leu Pro Pro  
 35 40 45  
 Met Val Ala Ser Val Ala Gly Gly Leu Gln Ala Gly Leu Asp Gly Glu  
 50 55 60  
 Ser Arg Gly Trp Ser Gly Gly Arg Gly Gln Pro His Pro Gly Gly Ala

65		70		75		80									
Arg	Gly	Gln	Arg	His	Thr	Val	Ala	Ala	Pro	Ala	Xaa	Arg	Ala	Arg	Ala
				85					90					95	
Gly	Ala	Glu	Pro	His	Ala	Ala	Ala	Ala	Pro	Arg	Arg	Leu	Pro	His	Ser
			100					105					110		
Pro	Pro	Pro	Arg	Ala	Gly	His	Pro	Ala	Pro	Gln	Leu	Ala	Gly	Trp	His
			115				120					125			
Gln	Ala	Pro	Arg	Leu	Lys	Arg	Thr	Val	Pro	Val	Arg	Arg	Ser		
		130				135					140				

<210> 5293  
 <211> 1428  
 <212> DNA  
 <213> Homo sapiens

<400> 5293  
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 180  
 ccgcgggcta gggagcgtgg gattccggac tgtgagcggc tgtagtgcg tcgcagctgc  
 240  
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 300  
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 360  
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 420  
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 480  
 gccgaacatg gcatatttct ccctccta atgcaaggac tgaccgatga tcagattgaa  
 540  
 gaattgaaat tgaaggatga atgggggtgaa aaatgcgtac ccagcggagg tgcaagtgtt  
 600  
 aaaaaggatg atattggacg aaggaatggg caagctcaa atgagaagat gaagcaagtg  
 660  
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 720  
 gtctgtgtta ccatggagat ggtgaaagat gccttggacc agcttcgagg cgcggtgatg  
 780  
 attgtttacc ccatggggtt gccaccgtat gatcccatcc gcatggagtt tgaaaaataag  
 840  
 gaagacttgt cgggaacaca ggcagggctc aacgtcatta aagaggcaga ggcgcagctg  
 900  
 tgggtggcag ccaaggagct gagaagaacg aagaagcttt cagactacgt ggggaagaat  
 960  
 gaaaaaacca aaattatcgc caagattcag caaaggggac agggagctcc agcccagag  
 1020  
 cctattatta gcagtgagga gcagaagcag ctgatgctgt actatcacag aagacaagag  
 1080  
 gagctcaaga gattggaaga aaatgatgat gatgcctatt taaactcacc atgggcggat  
 1140

aacactgctt tgaaaagaca ttttcattgga gtgaaagaca taaagtggag accaagatga  
 1200  
 agttcaccag ctgatgacac ttccaaagag attagctcac ctttctccta ggcaattata  
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 1320  
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 1428

<210> 5294

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5294

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			20					25					30		
Arg	Val	Tyr	Asn	Gly	Arg	Leu	Lys	Val	Gln	Arg	Leu	Cys	Ser	Glu	Met
		35					40					45			
Glu	Glu	Leu	Ala	Glu	His	Gly	Ile	Phe	Leu	Pro	Pro	Asn	Met	Gln	Gly
		50				55					60				
Leu	Thr	Asp	Asp	Gln	Ile	Glu	Glu	Leu	Lys	Leu	Lys	Asp	Glu	Trp	Gly
65					70					75				80	
Glu	Lys	Cys	Val	Pro	Ser	Gly	Gly	Ala	Val	Phe	Lys	Lys	Asp	Asp	Ile
			85					90					95		
Gly	Arg	Arg	Asn	Gly	Gln	Ala	Pro	Asn	Glu	Lys	Met	Lys	Gln	Val	Leu
			100					105					110		
Lys	Lys	Thr	Ile	Glu	Glu	Ala	Lys	Ala	Ile	Ile	Ser	Lys	Lys	Gln	Val
		115				120						125			
Glu	Ala	Gly	Val	Cys	Val	Thr	Met	Glu	Met	Val	Lys	Asp	Ala	Leu	Asp
		130				135					140				
Gln	Leu	Arg	Gly	Ala	Val	Met	Ile	Val	Tyr	Pro	Met	Gly	Leu	Pro	Pro
145					150					155				160	
Tyr	Asp	Pro	Ile	Arg	Met	Glu	Phe	Glu	Asn	Lys	Glu	Asp	Leu	Ser	Gly
			165					170					175		
Thr	Gln	Ala	Gly	Leu	Asn	Val	Ile	Lys	Glu	Ala	Glu	Ala	Gln	Leu	Trp
		180						185					190		
Trp	Ala	Ala	Lys	Glu	Leu	Arg	Arg	Thr	Lys	Lys	Leu	Ser	Asp	Tyr	Val
		195				200						205			
Gly	Lys	Asn	Glu	Lys	Thr	Lys	Ile	Ile	Ala	Lys	Ile	Gln	Gln	Arg	Gly
		210				215					220				
Gln	Gly	Ala	Pro	Ala	Arg	Glu	Pro	Ile	Ile	Ser	Ser	Glu	Glu	Gln	Lys
225					230					235				240	
Gln	Leu	Met	Leu	Tyr	Tyr	His	Arg	Arg	Gln	Glu	Glu	Leu	Lys	Arg	Leu
			245						250					255	
Glu	Glu	Asn	Asp	Asp	Ala	Tyr	Leu	Asn	Ser	Pro	Trp	Ala	Asp	Asn	
		260					265						270		
Thr	Ala	Leu	Lys	Arg	His	Phe	His	Gly	Val	Lys	Asp	Ile	Lys	Trp	Arg
		275					280						285		
Pro	Arg														

290

&lt;210&gt; 5295

&lt;211&gt; 1451

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5295

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120  
gacagtaacg agcagtgcctg gccggggccc actttcagag ggggcggaag ggcattctga  
180  
cacgtgtcat atggtaagag gcgcattccac tcacccaggc ctggtgcagg actctgcaag  
240  
gccctcctga gtaaagagtg gccacgaagg gctgctaggc agcacctact ctggaatca  
300  
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360  
gctgtggtga gccacaaagc accaagattc tgttcttcat tcagcaacca cccatgagcc  
420  
tcctgcttta ttccaatcgc atggcaccag cctgaaaacc tctctccctt ctgagaggaa  
480  
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540  
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600  
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660  
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720  
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1020  
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1080  
catgttcccc aagcaaacca tcacatcttc agagaggctg agatccttct gcagggccct  
1140  
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1200  
cagcacctcc tcggcgagct cctccacttc tacaaggtag cgcagcactc gctctgcctc  
1260  
gggtgtagc atagcgccca ccaactccgc ttgcggctct cgcgcgaccc cgggatctcc  
1320  
gcttcgggaa catgtttatc aagatgcctc accctgagac aaaggaaatg attgaaaaag  
1380

4462

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1440

ccttcacgcg t

1451

<210> 5296

<211> 133

<212> PRT

<213> Homo sapiens

<400> 5296

Met Leu Ser Pro Glu Ala Glu Arg Val Leu Arg Tyr Leu Val Glu Val  
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 20 25 30  
 Leu Asp Thr Lys Arg Asn Gln Asn Arg Glu Gly Leu Arg Ala Leu Gln  
 35 40 45  
 Lys Asp Leu Ser Leu Ser Glu Asp Val Met Val Cys Phe Gly Asn Met  
 50 55 60  
 Phe Ile Lys Met Pro His Pro Glu Thr Lys Glu Met Ile Glu Lys Asp  
 65 70 75 80  
 Gln Asp His Leu Asp Lys Glu Ile Glu Lys Leu Arg Lys Gln Leu Lys  
 85 90 95  
 Val Lys Val Asn Arg Leu Phe Glu Ala Gln Gly Lys Pro Glu Leu Lys  
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&lt;213&gt; Homo sapiens

&lt;400&gt; 5298

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&lt;210&gt; 5302

&lt;211&gt; 1339

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5302

Ala Pro Pro Ala Gly Arg Arg Arg Met Gln Ala Ala Pro Arg Ala Gly  
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 Ala Trp Thr Ala Pro Ser Thr Ser Gln Lys Cys Asp Glu Pro Leu Val  
 35 40 45  
 Ser Gly Leu Pro His Val Ala Phe Ser Ser Ser Ser Ser Ile Ser Gly

50		55		60
Ser Tyr Ser Pro Gly Tyr	Ala Lys Ile Asn Lys Arg Gly Gly Ala Gly			
65	70	75	80	
Gly Trp Ser Pro Ser Asp Ser	Asp His Tyr Gln Trp Leu Gln Val Asp			
	85	90	95	
Phe Gly Asn Arg Lys Gln Ile Ser	Ala Ile Ala Thr Gln Gly Arg Tyr			
	100	105	110	
Ser Ser Ser Asp Trp Val Thr	Gln Tyr Arg Met Leu Tyr Ser Asp Thr			
	115	120	125	
Gly Arg Asn Trp Lys Pro Tyr	His Gln Asp Gly Asn Ile Trp Ala Phe			
	130	135	140	
Pro Gly Asn Ile Asn Ser Asp	Gly Val Val Arg His Glu Leu Gln His			
145	150	155	160	
Pro Ile Ile Ala Arg Tyr Val	Arg Ile Val Pro Leu Asp Trp Asn Gly			
	165	170	175	
Glu Gly Arg Ile Gly Leu Arg	Ile Glu Val Tyr Gly Cys Ser Tyr Trp			
	180	185	190	
Ala Asp Val Ile Asn Phe Asp	Gly His Val Val Leu Pro Tyr Arg Phe			
	195	200	205	
Arg Asn Lys Lys Met Lys Thr	Leu Lys Asp Val Ile Ala Leu Asn Phe			
	210	215	220	
Lys Thr Ser Glu Ser Glu Gly	Val Ile Leu His Gly Glu Gly Gln Gln			
225	230	235	240	
Gly Asp Tyr Ile Thr Leu Glu	Leu Lys Lys Ala Lys Leu Val Leu Ser			
	245	250	255	
Leu Asn Leu Gly Ser Asn Gln	Leu Gly Pro Ile Tyr Gly His Thr Ser			
	260	265	270	
Val Met Thr Gly Ser Leu Leu	Asp Asp His His Trp His Ser Val Val			
	275	280	285	
Ile Glu Arg Gln Gly Arg Ser	Ile Asn Leu Thr Leu Asp Arg Ser Met			
	290	295	300	
Gln His Phe Arg Thr Asn Gly	Glu Phe Asp Tyr Leu Asp Leu Asp Tyr			
305	310	315	320	
Glu Ile Thr Phe Gly Gly Ile	Pro Phe Ser Gly Lys Pro Ser Ser Ser			
	325	330	335	
Ser Arg Lys Asn Phe Lys Gly	Cys Met Glu Ser Ile Asn Tyr Asn Gly			
	340	345	350	
Val Asn Ile Thr Asp Leu Ala	Arg Arg Lys Lys Leu Glu Pro Ser Asn			
	355	360	365	
Val Gly Asn Leu Ser Phe Ser	Cys Val Glu Pro Tyr Thr Val Pro Val			
	370	375	380	
Phe Phe Asn Ala Thr Ser Tyr	Leu Glu Val Pro Gly Arg Leu Asn Gln			
385	390	395	400	
Asp Leu Phe Ser Val Ser Phe	Gln Phe Arg Thr Trp Asn Pro Asn Gly			
	405	410	415	
Leu Leu Val Phe Ser His Phe	Ala Asp Asn Leu Gly Asn Val Glu Ile			
	420	425	430	
Asp Leu Thr Glu Ser Lys Val	Gly Val His Ile Asn Ile Thr Gln Thr			
	435	440	445	
Lys Met Ser Gln Ile Asp Ile	Ser Ser Gly Ser Gly Leu Asn Asp Gly			
	450	455	460	
Gln Trp His Glu Val Arg Phe	Leu Ala Lys Glu Asn Phe Ala Ile Leu			
465	470	475	480	
Thr Ile Asp Gly Asp Glu Ala	Ser Ala Val Arg Thr Asn Ser Pro Leu			

485 490 495  
 Gln Val Lys Thr Gly Glu Lys Tyr Phe Phe Gly Gly Phe Leu Asn Gln  
 500 505 510  
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 515 520 525  
 Met Gln Leu Ile Gln Val Asp Asp Gln Leu Val Asn Leu Tyr Glu Val  
 530 535 540  
 Ala Gln Arg Lys Pro Gly Ser Phe Ala Asn Val Ser Ile Asp Met Cys  
 545 550 555 560  
 Ala Ile Ile Asp Arg Cys Val Pro Asn His Cys Glu His Gly Gly Lys  
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 Cys Ser Gln Thr Trp Asp Ser Phe Lys Cys Thr Cys Asp Glu Thr Gly  
 580 585 590  
 Tyr Ser Gly Ala Thr Cys His Asn Ser Ile Tyr Glu Pro Ser Cys Glu  
 595 600 605  
 Ala Tyr Lys His Leu Gly Gln Thr Ser Asn Tyr Tyr Trp Ile Asp Pro  
 610 615 620  
 Asp Gly Ser Gly Pro Leu Gly Pro Leu Lys Val Tyr Cys Asn Met Thr  
 625 630 635 640  
 Glu Asp Lys Val Trp Thr Ile Val Ser His Asp Leu Gln Met Gln Thr  
 645 650 655  
 Pro Val Val Gly Tyr Asn Pro Glu Lys Tyr Ser Val Thr Gln Leu Val  
 660 665 670  
 Tyr Ser Ala Ser Met Asp Gln Ile Ser Ala Ile Thr Asp Ser Ala Glu  
 675 680 685  
 Tyr Cys Glu Gln Tyr Val Ser Tyr Phe Cys Lys Met Ser Arg Leu Leu  
 690 695 700  
 Asn Thr Pro Asp Gly Ser Pro Tyr Thr Trp Trp Val Gly Lys Ala Asn  
 705 710 715 720  
 Glu Lys His Tyr Tyr Trp Gly Gly Ser Gly Pro Gly Ile Gln Lys Cys  
 725 730 735  
 Ala Cys Gly Ile Glu Arg Asn Cys Thr Asp Pro Lys Tyr Tyr Cys Asn  
 740 745 750  
 Cys Asp Ala Asp Tyr Lys Gln Trp Arg Lys Asp Ala Gly Phe Leu Ser  
 755 760 765  
 Tyr Lys Asp His Leu Pro Val Ser Gln Val Val Val Gly Asp Thr Asp  
 770 775 780  
 Arg Gln Gly Ser Glu Ala Lys Leu Ser Val Gly Pro Leu Arg Cys Gln  
 785 790 795 800  
 Gly Asp Arg Asn Tyr Trp Asn Ala Ala Ser Phe Pro Asn Pro Ser Ser  
 805 810 815  
 Tyr Leu His Phe Ser Thr Phe Gln Gly Glu Thr Ser Ala Asp Ile Ser  
 820 825 830  
 Phe Tyr Phe Lys Thr Leu Thr Pro Trp Gly Val Phe Leu Glu Asn Met  
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 Gly Lys Glu Asp Phe Ile Lys Leu Glu Leu Lys Ser Ala Thr Glu Val  
 850 855 860  
 Ser Phe Ser Phe Asp Val Gly Asn Gly Pro Val Glu Ile Val Val Arg  
 865 870 875 880  
 Ser Pro Thr Pro Leu Asn Asp Asp Gln Trp His Arg Val Thr Ala Glu  
 885 890 895  
 Arg Asn Val Lys Gln Ala Ser Leu Gln Val Asp Arg Leu Pro Gln Gln  
 900 905 910  
 Ile Arg Lys Ala Pro Thr Glu Gly His Thr Arg Leu Glu Leu Tyr Ser

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 Gln Leu Phe Val Gly Gly Ala Gly Gly Gln Gln Gly Phe Leu Gly Cys  
 930                      935                      940  
 Ile Arg Ser Leu Arg Met Asn Gly Val Thr Leu Asp Leu Glu Glu Arg  
 945                      950                      955                      960  
 Ala Lys Val Thr Ser Gly Phe Ile Ser Gly Cys Ser Gly His Cys Thr  
 965                      970                      975  
 Ser Tyr Gly Thr Asn Cys Glu Asn Gly Gly Lys Cys Leu Glu Arg Tyr  
 980                      985                      990  
 His Gly Tyr Ser Cys Asp Cys Ser Asn Thr Ala Tyr Asp Gly Thr Phe  
 995                      1000                      1005  
 Cys Asn Lys Asp Val Gly Ala Phe Phe Glu Glu Gly Met Trp Leu Arg  
 1010                      1015                      1020  
 Tyr Asn Phe Gln Ala Pro Ala Thr Asn Ala Arg Asp Ser Ser Ser Arg  
 1025                      1030                      1035                      1040  
 Val Asp Asn Ala Pro Asp Gln Gln Asn Ser His Pro Asp Leu Ala Gln  
 1045                      1050                      1055  
 Glu Glu Ile Arg Phe Ser Phe Ser Thr Thr Lys Ala Pro Cys Ile Leu  
 1060                      1065                      1070  
 Leu Tyr Ile Ser Ser Phe Thr Thr Asp Phe Leu Ala Val Leu Val Lys  
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 Pro Thr Gly Ser Leu Gln Ile Arg Tyr Asn Leu Gly Gly Thr Arg Glu  
 1090                      1095                      1100  
 Pro Tyr Asn Ile Asp Val Asp His Arg Asn Met Ala Asn Gly Gln Pro  
 1105                      1110                      1115                      1120  
 His Ser Val Asn Ile Thr Arg His Glu Lys Thr Ile Phe Leu Lys Leu  
 1125                      1130                      1135  
 Asp His Tyr Pro Ser Val Ser Tyr His Leu Pro Ser Ser Ser Asp Thr  
 1140                      1145                      1150  
 Leu Phe Asn Ser Pro Lys Ser Leu Phe Leu Gly Lys Val Ile Glu Thr  
 1155                      1160                      1165  
 Gly Lys Ile Asp Gln Glu Ile His Lys Tyr Asn Thr Pro Gly Phe Thr  
 1170                      1175                      1180  
 Gly Cys Leu Ser Arg Val Gln Phe Asn Gln Ile Ala Pro Leu Lys Ala  
 1185                      1190                      1195                      1200  
 Ala Leu Arg Gln Thr Asn Ala Ser Ala His Val His Ile Gln Gly Glu  
 1205                      1210                      1215  
 Leu Val Glu Ser Asn Cys Gly Ala Ser Pro Leu Thr Leu Ser Pro Met  
 1220                      1225                      1230  
 Ser Ser Ala Thr Asp Pro Trp His Leu Asp His Leu Asp Ser Ala Ser  
 1235                      1240                      1245  
 Ala Asp Phe Pro Tyr Asn Pro Gly Gln Gly Gln Ala Ile Arg Asn Gly  
 1250                      1255                      1260  
 Val Asn Arg Asn Ser Ala Ile Ile Gly Gly Val Ile Ala Val Val Ile  
 1265                      1270                      1275                      1280  
 Phe Thr Ile Leu Cys Thr Leu Val Phe Leu Ile Arg Tyr Met Phe Arg  
 1285                      1290                      1295  
 His Lys Gly Thr Tyr His Thr Asn Glu Ala Lys Gly Ala Glu Ser Ala  
 1300                      1305                      1310  
 Glu Ser Ala Asp Ala Ala Ile Met Asn Asn Asp Pro Asn Phe Thr Glu  
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 1330                      1335

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 <211> 334  
 <212> DNA  
 <213> Homo sapiens

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 180  
 ccaaagagat ggaaggcctg gcagacagtg ggcctggcgg ggcggggccgg ccgcgggccc  
 240  
 tggcagcccc tgagggcagc acggagtttg actggggtga tgagacgtcg agggacagtg  
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 334

<210> 5304  
 <211> 95  
 <212> PRT  
 <213> Homo sapiens

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 Arg Gly Ala Arg Leu Gly Ser Arg Asp Gly Cys Met Lys Glu Ser Gln  
 20 25 30  
 Arg Arg Gly Tyr Cys Ser Arg His Leu Ser Met Arg Thr Lys Glu Met  
 35 40 45  
 Glu Gly Leu Ala Asp Ser Gly Pro Gly Gly Ala Gly Arg Pro Ala Ala  
 50 55 60  
 Val Ala Ala Arg Glu Gly Ser Thr Glu Phe Asp Trp Gly Asp Glu Thr  
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 Ser Arg Asp Ser Gly Gly Gln Gln Cys Gly Asp Ser Trp Arg Leu  
 85 90 95

<210> 5305  
 <211> 582  
 <212> DNA  
 <213> Homo sapiens

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<210> 5306  
 <211> 62  
 <212> PRT  
 <213> Homo sapiens

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 Gln Leu Ala Gly Pro Ser Leu Trp Leu Glu Leu Val Cys Val Tyr Leu  
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 Ile Lys Ser His Arg Cys Leu Lys Lys Lys Lys Lys Lys Lys  
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 Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
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<210> 5307  
 <211> 1551  
 <212> DNA  
 <213> Homo sapiens

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 240  
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 300  
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 360  
 cgggggcaga gtgggggaat caggctttat tcaaaagaaa cagttgaaaa catgggactt  
 420  
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 480  
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 1080  
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 1200  
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 1551

&lt;210&gt; 5308

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5308

Met	Leu	Gly	Val	Gly	Ser	Glu	Glu	Leu	Thr	Gln	Gly	Arg	Asp	Gly	Ser
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Leu	Leu	Ile	Asp	Leu	Thr	Trp	Thr	His	Arg	Gly	Gly	Lys	Thr	Cys	Gly
		20						25					30		
Asp	His	His	Arg	Gly	His	Gly	Pro	Thr	Ser	Val	Ile	Trp	Glu	Thr	Gly
		35				40					45				
Leu	Gly	Arg	Gly	Gly	Asp	Phe	Pro	Lys	Ser	Pro	Ser	Ile	His	Asp	Arg
	50					55					60				
Gly	Arg	Ala	Trp	Glu	Leu	Gly	Thr	Gln	Gly	Ser	Ser	Lys	Arg	Ser	Arg
65				70				75					80		
Ser	Leu	Cys	Tyr	Pro	Gln	Ile	His	Lys	Leu	Arg	Ile	Thr	Cys	Ile	His
			85					90					95		
Phe	Pro	Pro	Pro	Trp	Thr	Leu	Cys	Phe	Glu	Leu	Phe	Cys	Leu	Pro	Asp
			100					105						110	

&lt;210&gt; 5309

&lt;211&gt; 2078



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5309

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120  
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900  
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1140  
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1440  
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gaaggataga ctcataatta aaatgtctaa catgtctctg ttgagaaatt tatttaaatgt  
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 aaggaaacttg ggtgttaata gttgagagct gtttagtaat aaccagttt tcttgaggtc  
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<210> 5310

<211> 359

<212> PRT

<213> Homo sapiens

<400> 5310

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Thr	Asn	Arg	Lys	Ala	Asn	Glu	Ser	Cys	Ser	Asn	Thr	Ala	Pro	Ser	Leu
	20						25					30			
Thr	Val	Pro	Glu	Cys	Ala	Ile	Cys	Leu	Gln	Thr	Cys	Val	His	Pro	Val
	35					40					45				
Ser	Leu	Pro	Cys	Lys	His	Val	Phe	Cys	Tyr	Leu	Cys	Val	Lys	Gly	Ala
	50				55					60					
Ser	Trp	Leu	Gly	Lys	Arg	Cys	Ala	Leu	Cys	Arg	Gln	Glu	Ile	Pro	Glu
65				70					75					80	
Asp	Phe	Leu	Asp	Lys	Pro	Thr	Leu	Leu	Ser	Pro	Glu	Glu	Leu	Lys	Ala
			85					90						95	
Ala	Ser	Arg	Gly	Asn	Gly	Glu	Tyr	Ala	Trp	Tyr	Tyr	Glu	Gly	Arg	Asn
		100					105						110		
Gly	Trp	Trp	Gln	Tyr	Asp	Glu	Arg	Thr	Ser	Arg	Glu	Leu	Glu	Asp	Ala
	115				120							125			
Phe	Ser	Lys	Gly	Lys	Lys	Asn	Thr	Glu	Met	Leu	Ile	Ala	Gly	Phe	Leu
	130				135						140				
Tyr	Val	Ala	Asp	Leu	Glu	Asn	Met	Val	Gln	Tyr	Arg	Arg	Asn	Glu	His
145				150					155					160	
Gly	Arg	Arg	Arg	Lys	Ile	Lys	Arg	Asp	Ile	Ile	Asp	Ile	Pro	Lys	Lys
			165					170						175	
Gly	Val	Ala	Gly	Leu	Arg	Leu	Asp	Cys	Asp	Ala	Asn	Thr	Val	Asn	Leu
		180					185						190		
Ala	Arg	Glu	Ser	Ser	Ala	Asp	Gly	Ala	Asp	Ser	Val	Ser	Ala	Gln	Ser
	195					200						205			
Gly	Ala	Ser	Val	Gln	Pro	Leu	Val	Ser	Ser	Val	Arg	Pro	Leu	Thr	Ser

210	215	220
Val Asp Gly Gln Leu Thr Ser Pro Ala Thr Pro Ser Pro Asp Ala Ser		
225	230	235
Thr Ser Leu Glu Asp Ser Phe Ala His Leu Gln Leu Ser Gly Asp Asn		240
	245	250
Thr Ala Glu Arg Ser His Arg Gly Glu Gly Glu Glu Asp His Glu Ser		255
	260	265
Pro Ser Ser Gly Arg Val Pro Ala Pro Asp Thr Ser Ile Glu Glu Thr		270
	275	280
Glu Ser Asp Ala Ser Ser Asp Ser Glu Asp Val Ser Ala Val Val Ala		285
	290	295
Gln His Ser Leu Thr Gln Gln Arg Leu Leu Val Ser Asn Ala Asn Gln		300
305	310	315
Thr Val Pro Asp Arg Ser Asp Arg Ser Gly Thr Asp Arg Ser Val Ala		320
	325	330
Gly Gly Gly Thr Val Ser Val Ser Val Arg Ser Arg Arg Pro Asp Gly		335
	340	345
Gln Cys Thr Val Thr Glu Val		350
355		

<210> 5311  
 <211> 572  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 180  
 gagaagtgtc agatgacgtc cagcgagcgc aggaagatca tgtgctcagt gacattccac  
 240  
 gtcattgccca tcacatgtgt ggtctgggtcc ttgtatgtgc tcattgaccg tcctgctgag  
 300  
 gagatcaagc aggggcaggc aacaggaatc ctagaatggc ccttttggac taaattggtg  
 360  
 gttgtggcca tcggcttcac cagaggactt ctttttatgt atgttcagtg taaagtgtat  
 420  
 gtgcaattgt ggaagagact caaggcctat aatagagtga tctatgttca aaactgtcca  
 480  
 gaaacaagca aaaagaatat ttttgaaaaa tctccactaa cagagcccaa ctttgaaaat  
 540  
 aaacatggat atggaatctg tcattccgac ac  
 572

<210> 5312  
 <211> 190  
 <212> PRT  
 <213> Homo sapiens

<400> 5312  
 Cys His Cys Glu Gly Asp Asp Glu Ser Pro Leu Ile Thr Pro Cys His

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      1           5           10           15
Cys Thr Gly Ser Leu His Phe Val His Gln Ala Tyr Leu Gln Gln Trp
      20           25           30
Ile Lys Ser Ser Asp Thr Arg Cys Cys Glu Leu Cys Lys Tyr Glu Phe
      35           40           45
Ile Met Glu Thr Lys Leu Lys Pro Leu Arg Lys Trp Glu Lys Leu Gln
      50           55           60
Met Thr Ser Ser Glu Arg Arg Lys Ile Met Cys Ser Val Thr Phe His
      65           70           75           80
Val Ile Ala Ile Thr Cys Val Val Trp Ser Leu Tyr Val Leu Ile Asp
      85           90           95
Arg Pro Ala Glu Glu Ile Lys Gln Gly Gln Ala Thr Gly Ile Leu Glu
      100          105          110
Trp Pro Phe Trp Thr Lys Leu Val Val Ala Ile Gly Phe Thr Arg
      115          120          125
Gly Leu Leu Phe Met Tyr Val Gln Cys Lys Val Tyr Val Gln Leu Trp
      130          135          140
Lys Arg Leu Lys Ala Tyr Asn Arg Val Ile Tyr Val Gln Asn Cys Pro
      145          150          155          160
Glu Thr Ser Lys Lys Asn Ile Phe Glu Lys Ser Pro Leu Thr Glu Pro
      165          170          175
Asn Phe Glu Asn Lys His Gly Tyr Gly Ile Cys His Ser Asp
      180          185          190

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<210> 5313  
 <211> 322  
 <212> DNA  
 <213> Homo sapiens

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<400> 5313
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120
gtgcgcctcg ctctgctctg ctccgagaag cccacgcaca gcctgctgcy gaggatcgcc
180
cagcagctgc cccggcaaca caggcaattc cacgttggtg ggcactggcc tgtgcatatg
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300
acacacatac atgtccacac ac
322

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<210> 5314  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

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<400> 5314
Arg Gly Arg Arg Glu Glu Gly Asp Lys Arg Ser Val Ala Pro Gln
1           5           10           15
Thr Arg Val Leu Lys Gly Val Met Arg Val Gly Ile Leu Ala Lys Gly
20           25           30
Leu Leu Leu Arg Gly Asp Arg Asn Val Arg Leu Ala Leu Leu Cys Ser

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35					40					45					
Glu	Lys	Pro	Thr	His	Ser	Leu	Leu	Arg	Arg	Ile	Ala	Gln	Gln	Leu	Pro
50					55					60					
Arg	Gln	His	Arg	Gln	Phe	His	Val	Val	Cys	Asp	Trp	Pro	Val	His	Met
65					70					75					
Glu	Val	Phe	Ser	Asp	Leu	Ala	Leu	Asp	Thr	Pro	Ala	Asn	Arg	Thr	His
85					90					95					
Thr	Tyr	Ser	Leu	Thr	His	Ile	His	Val	His	Thr					
100					105										

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<210> 5315
<211> 2298
<212> DNA
<213> Homo sapiens
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<400> 5315  
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120  
gcatgtcccc gggcctccgt gaagggggcg gcgcgcgcta tggagatcgc gccgcaggag  
180  
gcgccgcccc tgccggggcg ggacggcgac attgaagagg cccagctga ggcgggtct  
240  
cccagccccg cgtcgcccc cgccgatggg cgctcaagg ctgcagccaa gcgcgtcaca  
300  
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420  
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480  
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540  
gaagaggtct tcaagaggct gcagttcaag gtcgtggacc tggagcagac aaacctggat  
600  
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720  
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960  
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1020  
gtgctagact cgggtctggc ctacatctgc gaggcgctca aggagcagag gaaggggctg  
1080  
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1140

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 1200  
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&lt;210&gt; 5316

&lt;211&gt; 544

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5316

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Gln	Lys	Leu	Asn	Cys	Arg	Gln	Ile	Pro	Lys	Leu	Leu	Arg	Gln	Leu	Gln
			20					25					30		
Glu	Phe	Thr	Asp	Leu	Gly	His	Arg	Leu	Asp	Cys	Leu	Asp	Leu	Lys	Gly
		35					40				45				
Glu	Lys	Leu	Asp	Tyr	Lys	Thr	Cys	Glu	Ala	Leu	Glu	Glu	Val	Phe	Lys

50 55 60  
 Arg Leu Gln Phe Lys Val Val Asp Leu Glu Gln Thr Asn Leu Asp Glu  
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 Asp Gly Ala Ser Ala Leu Phe Asp Met Ile Glu Tyr Tyr Glu Ser Ala  
 85 90 95  
 Thr His Leu Asn Ile Ser Phe Asn Lys His Ile Gly Thr Arg Gly Trp  
 100 105 110  
 Gln Ala Ala Ala His Met Met Arg Lys Thr Ser Cys Leu Gln Tyr Leu  
 115 120 125  
 Asp Ala Arg Asn Thr Pro Leu Leu Asp His Ser Ala Pro Phe Val Ala  
 130 135 140  
 Arg Ala Leu Arg Ile Arg Ser Ser Leu Ala Val Leu His Leu Glu Asn  
 145 150 155 160  
 Ala Ser Leu Ser Gly Arg Pro Leu Met Leu Leu Ala Thr Ala Leu Lys  
 165 170 175  
 Met Asn Met Asn Leu Arg Glu Leu Tyr Leu Ala Asp Asn Lys Leu Asn  
 180 185 190  
 Gly Leu Gln Asp Ser Ala Gln Leu Gly Asn Leu Leu Lys Phe Asn Cys  
 195 200 205  
 Ser Leu Gln Ile Leu Asp Leu Arg Asn Asn His Val Leu Asp Ser Gly  
 210 215 220  
 Leu Ala Tyr Ile Cys Glu Gly Leu Lys Glu Gln Arg Lys Gly Leu Val  
 225 230 235 240  
 Thr Leu Val Leu Trp Asn Asn Gln Leu Thr His Thr Gly Met Ala Phe  
 245 250 255  
 Leu Gly Met Thr Leu Ser His Thr Gln Ser Leu Glu Thr Leu Asn Leu  
 260 265 270  
 Gly His Asn Pro Ile Gly Asn Glu Gly Val Arg His Leu Lys Asn Gly  
 275 280 285  
 Leu Ile Ser Asn Arg Ser Val Leu Arg Leu Gly Leu Ala Ser Thr Lys  
 290 295 300  
 Leu Thr Cys Glu Gly Ala Val Ala Val Ala Glu Phe Ile Ala Glu Ser  
 305 310 315 320  
 Pro Arg Leu Leu Arg Leu Asp Leu Arg Glu Asn Glu Ile Lys Thr Gly  
 325 330 335  
 Gly Leu Met Ala Leu Ser Leu Ala Leu Lys Val Asn His Ser Leu Leu  
 340 345 350  
 Arg Leu Asp Leu Asp Arg Glu Pro Lys Lys Glu Ala Val Lys Ser Phe  
 355 360 365  
 Ile Glu Thr Gln Lys Ala Leu Leu Ala Glu Ile Gln Asn Gly Cys Lys  
 370 375 380  
 Arg Asn Leu Val Leu Ala Arg Glu Arg Glu Lys Glu Gln Pro Pro  
 385 390 395 400  
 Gln Leu Ser Ala Ser Met Pro Glu Thr Thr Ala Thr Glu Pro Gln Pro  
 405 410 415  
 Asp Asp Glu Pro Ala Ala Gly Val Gln Asn Gly Ala Pro Ser Pro Ala  
 420 425 430  
 Pro Ser Pro Asp Ser Asp Ser Asp Ser Asp Ser Asp Gly Glu Glu Glu  
 435 440 445  
 Glu Glu Glu Glu Gly Glu Arg Asp Glu Thr Pro Ser Gly Ala Ile Asp  
 450 455 460  
 Thr Arg Asp Thr Gly Ser Ser Glu Pro Gln Pro Pro Pro Glu Pro Pro  
 465 470 475 480  
 Arg Ser Gly Pro Pro Leu Pro Asn Gly Leu Lys Pro Glu Phe Ala Leu

				485					490					495					
Ala	Leu	Pro	Pro	Glu	Pro	Pro	Pro	Gly	Pro	Glu	Val	Lys	Gly	Gly	Ser				
				500					505					510					
Cys	Gly	Leu	Glu	His	Glu	Leu	Ser	Cys	Ser	Lys	Asn	Glu	Lys	Glu	Leu				
		515					520						525						
Glu	Glu	Leu	Leu	Leu	Glu	Ala	Ser	Gln	Glu	Ser	Gly	Gln	Glu	Thr	Leu				
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<210> 5317
<211> 889
<212> DNA
<213> Homo sapiens
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**<400> 5317**

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120					
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180					
gcatgaaggg	gaaggcccg	aagctgttct	acaaggccat	cgtgcggggc	gaggagaccc
240					
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300					
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360					
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420					
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480					
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660					
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780					
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<210> 5318
<211> 132
<212> PRT
<213> Homo sapiens
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<400> 5318  
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      20      25      30
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      35      40      45
Ala Ala Thr Trp Trp Ser Arg Ser Ser Gly Ser Thr Thr Leu Arg Arg
      50      55      60
Pro Ser Trp Ala Ser Ser Ser Thr Arg Ala Ser Thr Gly Thr Arg Ser
65      70      75      80
Pro Ala Ala Ala Ser Arg Arg Pro Cys Gly Ser Pro Ala Arg Gly Arg
      85      90      95
Thr Ser Trp Ser Ala Arg Tyr Thr Ser Pro Arg Met Trp Thr Lys Met
      100      105      110
Thr Cys Arg Arg Cys Arg Thr Ser Ala Trp Trp Trp Ala Trp Ser Ser
      115      120      125
Met Ser Arg Cys
      130

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&lt;210&gt; 5319

&lt;211&gt; 4231

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5319

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420
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960

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<213> Homo sapiens

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 Ala Gly Tyr Pro Leu Thr Glu Asp Met Asn Gly Phe Gln Gln Glu Gly  
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 Phe Gly Trp Met Asp Met Thr Ile His Glu  
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&lt;210&gt; 5327

&lt;211&gt; 2084

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5327

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 2084

&lt;210&gt; 5328

&lt;211&gt; 694

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5328

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Lys	Glu	Val	Ser	Gln	Phe	Thr	Pro	Val	Ala	Phe	Pro	Ile	Ala	Lys	Asp
			20					25					30		
Arg	Cys	Val	Val	Ala	Ala	Phe	Trp	Ala	Asp	Val	Asp	Asn	Arg	Arg	Ala
		35				40					45				
Gly	Asp	Val	Tyr	Tyr	Arg	Glu	Ala	Thr	Asp	Pro	Ala	Met	Leu	Arg	Arg

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      50      55      60
Ala Thr Glu Asp Val Arg His Tyr Phe Pro Glu Leu Leu Asp Phe Asn
65      70      75      80
Ala Thr Trp Val Phe Val Ala Thr Trp Tyr Arg Val Thr Phe Phe Gly
      85      90      95
Gly Ser Ser Ser Pro Val Asn Thr Phe Gln Thr Val Leu Ile Thr
      100      105      110
Asp Gly Lys Leu Ser Phe Thr Ile Phe Asn Tyr Glu Ser Ile Val Trp
      115      120      125
Thr Thr Gly Thr His Ala Ser Ser Gly Gly Asn Ala Thr Gly Leu Gly
      130      135      140
Gly Ile Ala Ala Gln Ala Gly Phe Asn Ala Gly Asp Gly Gln Arg Tyr
145      150      155      160
Phe Ser Ile Pro Gly Ser Arg Thr Ala Asp Met Ala Glu Val Glu Thr
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Thr Thr Asn Val Gly Val Pro Gly Arg Trp Ala Phe Arg Ile Asp Asp
      180      185      190
Ala Gln Val Arg Val Gly Gly Cys Gly His Thr Thr Ser Val Cys Leu
      195      200      205
Ala Leu Arg Pro Cys Leu Asn Gly Gly Lys Cys Ile Asp Asp Cys Val
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Thr Gly Asn Pro Ser Tyr Thr Cys Ser Cys Leu Ser Gly Phe Thr Gly
225      230      235      240
Arg Arg Cys His Leu Asp Val Asn Glu Cys Ala Ser Gln Pro Cys Gln
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Asn Gly Gly Thr Cys Thr His Gly Ile Asn Ser Phe Arg Cys Gln Cys
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Pro Ala Gly Phe Gly Gly Pro Thr Cys Glu Thr Ala Gln Ser Pro Cys
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Asp Thr Lys Glu Cys Gln His Gly Gly Gln Cys Gln Val Glu Asn Gly
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Ser Ala Val Cys Val Cys Gln Ala Gly Tyr Thr Gly Ala Ala Cys Glu
305      310      315      320
Met Asp Val Asp Asp Cys Ser Pro Asp Pro Cys Leu Asn Gly Gly Ser
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Cys Val Asp Leu Val Gly Asn Tyr Thr Cys Leu Cys Ala Glu Pro Phe
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Lys Gly Leu Arg Cys Glu Thr Gly Asp His Pro Val Pro His Ala Cys
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Leu Ser Ala Pro Cys His Asn Gly Gly Thr Cys Val Asp Ala Asp Gln
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Gly Tyr Val Cys Glu Cys Pro Glu Gly Phe Met Gly Leu Asp Cys Arg
385      390      395      400
Glu Arg Val Xaa Pro Met Thr Val Ser Ala Ala Thr Glu Ala Asp Ala
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Trp Ala Pro Thr Pro Pro Ser Ala His Ala Pro Cys Gly Xaa Ser Leu
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Gly Phe Ser Val Asn Leu Lys Ser Gln Pro Xaa Pro Cys Asn Met Asn
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Thr Gln Cys Pro Asp Gly Gly Tyr Cys Met Glu His Gly Gly Ser Tyr
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Leu Cys Val Cys His Thr Asp His Asn Ala Ser His Ser Leu Pro Ser
465      470      475      480
Pro Cys Asp Ser Asp Pro Cys Phe Asn Gly Gly Ser Cys Asp Ala His

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485 490 495  
 Asp Asp Ser Tyr Thr Cys Glu Cys Pro Arg Gly Phe His Gly Lys His  
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 515 520 525  
 Gly Gly Thr Cys Lys Glu Ala Gly Gly Glu Tyr His Cys Ser Cys Pro  
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 Tyr Arg Phe Thr Gly Arg His Cys Glu Ile Gly Lys Pro Asp Ser Cys  
 545 550 555 560  
 Ala Ser Gly Pro Cys His Asn Gly Gly Thr Cys Phe His Tyr Ile Gly  
 565 570 575  
 Lys Tyr Lys Cys Asp Cys Pro Pro Gly Phe Ser Gly Arg His Cys Glu  
 580 585 590  
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 595 600 605  
 Cys Glu Asp Arg Asp Thr Asp Phe Phe Cys His Cys Gln Ala Gly Tyr  
 610 615 620  
 Met Gly Arg Arg Cys Gln Ala Glu Val Asp Cys Gly Pro Pro Glu Glu  
 625 630 635 640  
 Val Lys His Ala Thr Leu Arg Phe Asn Gly Thr Arg Leu Gly Ala Val  
 645 650 655  
 Ala Leu Tyr Ala Cys Asp Arg Gly Tyr Ser Leu Ser Ala Pro Ser Arg  
 660 665 670  
 Ile Arg Val Cys Gln Pro His Gly Val Trp Ser Glu Pro Pro Gln Cys  
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 Leu Gly Asp Ser Val Gly  
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&lt;210&gt; 5329

&lt;211&gt; 2582

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5329

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 2580  
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 2582

<210> 5330  
 <211> 308  
 <212> PRT  
 <213> Homo sapiens

<400> 5330  
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 Ala Leu Arg Lys Lys Glu Leu Asp Glu Glu Glu Ser Ile Arg Lys Lys  
 35 40 45  
 Ala Val Gln Phe Gly Thr Gly Glu Leu Cys Asp Ala Ile Ser Ala Val  
 50 55 60  
 Glu Glu Lys Val Ser Tyr Leu Arg Pro Leu Asp Phe Glu Glu Ala Arg  
 65 70 75 80  
 Glu Leu Phe Leu Leu Gly Gln His Tyr Val Phe Glu Ala Lys Glu Phe  
 85 90 95  
 Phe Gln Ile Asp Gly Tyr Val Thr Asp His Ile Glu Val Val Gln Asp  
 100 105 110  
 His Ser Ala Leu Phe Lys Val Leu Ala Phe Phe Glu Thr Asp Met Glu  
 115 120 125  
 Arg Arg Cys Lys Met His Lys Arg Arg Ile Ala Met Leu Glu Pro Leu  
 130 135 140  
 Thr Val Asp Leu Asn Pro Gln Tyr Tyr Leu Leu Val Asn Arg Gln Ile  
 145 150 155 160  
 Gln Phe Glu Ile Ala His Ala Tyr Tyr Asp Met Met Asp Leu Lys Val  
 165 170 175  
 Ala Ile Ala Asp Arg Leu Arg Asp Pro Asp Ser His Ile Val Lys Lys  
 180 185 190  
 Ile Asn Asn Leu Asn Lys Ser Ala Leu Lys Tyr Tyr Gln Leu Phe Leu  
 195 200 205  
 Asp Ser Leu Arg Asp Pro Asn Lys Val Phe Pro Glu His Ile Gly Glu  
 210 215 220  
 Asp Val Leu Arg Pro Ala Met Leu Ala Lys Phe Arg Val Ala Arg Leu  
 225 230 235 240  
 Tyr Gly Lys Ile Ile Thr Ala Asp Pro Lys Lys Glu Leu Glu Asn Leu  
 245 250 255  
 Ala Thr Ser Leu Glu His Tyr Lys Phe Ile Val Asp Tyr Cys Glu Lys



260 265 270  
 His Pro Glu Ala Ala Gln Glu Ile Glu Val Glu Leu Glu Leu Ser Lys  
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<210> 5331  
 <211> 1069  
 <212> DNA  
 <213> Homo sapiens

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 960  
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<210> 5332  
 <211> 61  
 <212> PRT

<213> Homo sapiens

<400> 5332

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Lys Gln Lys Arg Ala Asn His Arg Glu Arg Asn Lys Thr Arg Gly Lys
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Met Ile Thr Asp Ser Gly Lys Phe Ser Gly Ser Ser Pro Ala Pro Pro
 35             40             45
Ser Gln Pro Gln Gly Leu Ser Tyr Ala Xaa Gly Arg Gly
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<210> 5333

<211> 883

<212> DNA

<213> Homo sapiens

<400> 5333

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<210> 5334

<211> 269

<212> PRT

<213> Homo sapiens

&lt;400&gt; 5334

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 35 40 45  
 Ile Gln Ala Arg Met Gly Val Phe Ala Gln Ala Asp Gly Ser Ala Tyr  
 50 55 60  
 Ile Glu Gln Gly Asn Thr Lys Ala Leu Ala Val Val Tyr Gly Pro His  
 65 70 75 80  
 Glu Ile Arg Gly Ser Arg Ala Arg Ala Leu Pro Asp Arg Ala Leu Val  
 85 90 95  
 Asn Cys Gln Tyr Ser Ser Ala Thr Phe Ser Thr Gly Glu Arg Lys Arg  
 100 105 110  
 Arg Pro His Gly Asp Arg Lys Ser Cys Glu Met Gly Leu Gln Leu Arg  
 115 120 125  
 Gln Thr Phe Glu Ala Ala Ile Leu Thr Gln Leu His Pro Arg Ser Gln  
 130 135 140  
 Ile Asp Ile Tyr Val Gln Val Leu Gln Ala Asp Gly Thr Tyr Ala  
 145 150 155 160  
 Ala Cys Val Asn Ala Ala Thr Leu Ala Val Leu Asp Ala Gly Ile Pro  
 165 170 175  
 Met Arg Asp Phe Val Cys Ala Cys Ser Ala Gly Phe Val Asp Gly Thr  
 180 185 190  
 Ala Leu Ala Asp Leu Ser His Val Glu Glu Ala Ala Gly Gly Pro Gln  
 195 200 205  
 Leu Ala Leu Ala Leu Leu Pro Ala Ser Gly Gln Ile Ala Leu Leu Glu  
 210 215 220  
 Met Asp Ala Arg Leu His Glu Asp His Leu Glu Arg Val Leu Glu Ala  
 225 230 235 240  
 Ala Ala Gln Ala Ala Arg Asp Val His Thr Leu Leu Asp Arg Val Val  
 245 250 255  
 Arg Gln His Val Arg Glu Ala Ser Ile Leu Leu Gly Asp  
 260 265

&lt;210&gt; 5335

&lt;211&gt; 4282

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5335

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<211> 766

<212> PRT

<213> Homo sapiens

<400> 5336

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Glu	Pro	His	Glu	Ser	Phe	Phe	Ser	Leu	Phe	Ser	Asp	Pro	Arg	Ser	Thr
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Val Ser Leu Val Leu Tyr Asn Met Asp Leu Ser Asp Asp His Ile Arg
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Arg Leu Ser Ser Tyr Tyr Lys Phe Lys Leu Thr Arg Glu Val Leu Ser
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&lt;211&gt; 2742

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&lt;213&gt; Homo sapiens

&lt;400&gt; 5337

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<213> Homo sapiens

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<212> DNA

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Arg	Met	Cys	Gly	Leu	Ser	Phe	Phe	Lys	Glu	Asn	Tyr	Ser	His	Leu	Asn	130	135	140	
Ala	Lys	Lys	Ile	Val	Ser	Thr	His	His	Leu	Leu	Ala	Asp	Val	Tyr	Gly	145	150	155	160
Val	Thr	Glu	Val	Leu	His	Gly	Leu	Gln	Leu	Lys	Ile	Gly	Ile	Leu	Lys	165	170	175	
Asn	Lys	His	His	Pro	Asp	Leu	His	Leu	Trp	Ala	Cys	Ser	Gly	Lys	Arg	180	185	190	
Lys	Asp	Gln	Asp	Gln	Ile	Ile	Ala	Gly	Val	Glu	Lys	Lys	Ile	Ala	Gln	195	200	205	
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&lt;210&gt; 5342

&lt;211&gt; 690

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5342

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 Ala Met Leu Ala Arg Pro Trp Leu Gly Pro Trp Val Pro His Gly Leu  
 50 55 60  
 Ser Leu Ala Ala Ala Ala Leu Ala Leu Thr Leu Leu Pro Ala Arg Leu  
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 Pro Pro Gly Leu Arg Trp Leu Pro Ala Asp Val Ile Phe Leu Ala Lys  
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Phe Gly Glu Leu Asp Ala Arg Ala Cys Gln Ala Ala Trp Ala Leu Lys
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      165      170      175
Leu Leu Val Leu Ala Ser Gln Ala Val Pro Ala Leu Cys Met Trp Leu
      180      185      190
Gly Leu Ala Lys Leu Gly Cys Pro Thr Ala Trp Ile Asn Pro His Gly
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Arg Gly Met Pro Leu Ala His Ser Val Leu Ser Ser Gly Ala Arg Val
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Lys Leu Gln Ala Glu Asn Ile Arg Cys Phe Tyr Leu Ser His Thr Ser
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Pro Thr Pro Gly Val Gly Ala Leu Gly Ala Ala Leu Asp Ala Ala Pro
      260      265      270
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      275      280      285
Pro Ala Leu Phe Ile Tyr Thr Ser Gly Thr Thr Gly Leu Pro Lys Pro
      290      295      300
Ala Ile Leu Thr His Glu Arg Val Leu Gln Met Ser Lys Met Leu Ser
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Tyr His Val Met Gly Leu Val Val Gly Ile Leu Gly Cys Leu Asp Leu
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Gly Ala Thr Cys Val Leu Ala Pro Lys Phe Ser Thr Ser Cys Phe Trp
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Asp Asp Cys Arg Gln His Gly Val Thr Val Ile Leu Tyr Val Gly Glu
      370      375      380
Leu Leu Arg Tyr Leu Cys Asn Ile Pro Gln Gln Pro Glu Asp Arg Thr
      385      390      395      400
His Thr Val Arg Leu Ala Met Gly Asn Gly Leu Arg Ala Asp Val Trp
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Glu Thr Phe Gln Gln Arg Phe Gly Pro Ile Arg Ile Trp Glu Val Tyr
      420      425      430
Gly Ser Thr Glu Gly Asn Met Gly Leu Val Asn Tyr Val Gly Arg Cys
      435      440      445
Gly Ala Leu Gly Lys Met Ser Cys Leu Leu Arg Met Leu Ser Pro Phe
      450      455      460
Glu Leu Val Gln Phe Asp Met Glu Ala Ala Glu Pro Val Arg Asp Asn
      465      470      475      480
Gln Gly Phe Cys Ile Pro Val Gly Leu Gly Glu Pro Gly Leu Leu Leu
      485      490      495
Thr Lys Val Val Ser Gln Gln Pro Phe Val Gly Tyr Arg Gly Pro Arg
      500      505      510
Glu Leu Ser Glu Arg Lys Leu Val Arg Asn Val Arg Gln Ser Gly Asp
      515      520      525
Val Tyr Tyr Asn Thr Gly Asp Val Leu Ala Met Asp Arg Glu Gly Phe

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 Leu Tyr Phe Arg Asp Arg Leu Gly Asp Thr Phe Arg Trp Lys Gly Glu  
 545                      550                      555                      560  
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                     565                      570                      575  
 Leu Gln Gln Val Asn Val Tyr Gly Val Cys Val Pro Gly Cys Glu Gly  
                     580                      585                      590  
 Lys Val Gly Met Ala Ala Val Gln Leu Ala Pro Gly Gln Thr Phe Asp  
                     595                      600                      605  
 Gly Glu Lys Leu Tyr Gln His Val Arg Ala Trp Leu Pro Ala Tyr Ala  
                     610                      615                      620  
 Thr Pro His Phe Ile Arg Ile Gln Asp Ala Met Glu Val Thr Ser Thr  
 625                      630                      635                      640  
 Phe Lys Leu Met Lys Thr Arg Leu Val Arg Glu Gly Phe Asn Val Gly  
                     645                      650                      655  
 Ile Val Val Asp Pro Leu Phe Val Leu Asp Asn Arg Ala Gln Ser Phe  
                     660                      665                      670  
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 <213> Homo sapiens  
  
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 240  
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 <212> PRT  
 <213> Homo sapiens

<400> 5344  
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 Glu Arg Ser Phe Phe Leu Lys Lys Arg Arg Ala Asp Phe Val Ala Gly  
 35 40 45  
 Ser Leu Ser Gly Arg Val Ile Val Ala Gly Gly Leu Gly Asn Gln Pro  
 50 55 60  
 Thr Val Leu Glu Thr Ala Glu Ala Phe His Pro Gly Lys Asn Lys Trp  
 65 70 75 80  
 Glu Ile Leu Pro Ala Met Pro Thr Pro Arg Cys Ala Cys Ser Ser Ile  
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 1912

&lt;210&gt; 5346

&lt;211&gt; 534

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5346

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 35 40 45  
 Cys Thr Ala Lys Val Gly Lys Ala His Val Tyr Cys Glu Gly Asn Asp

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Val Tyr Asp Val Met Leu Asn Gln Thr Asn Leu Gln Phe Asn Asn Asn		
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Lys Tyr Tyr Leu Ile Gln Leu Leu Glu Asp Ala Gln Arg Asn Phe		80
	85	90
Ser Val Trp Met Arg Trp Gly Arg Val Gly Lys Met Gly Gln His Ser		95
	100	105
Leu Val Ala Cys Ser Gly Asn Leu Asn Lys Ala Lys Glu Ile Phe Gln		110
	115	120
Lys Lys Phe Leu Asp Lys Thr Lys Asn Asn Trp Glu Asp Arg Glu Lys		125
	130	135
Phe Glu Lys Val Pro Gly Lys Tyr Asp Met Leu Gln Met Asp Tyr Ala		140
	145	150
Thr Asn Thr Gln Asp Glu Glu Glu Thr Lys Lys Glu Glu Ser Leu Lys		155
	160	165
Ser Pro Leu Lys Pro Glu Ser Gln Leu Asp Leu Arg Val Gln Glu Leu		170
	175	180
Ile Lys Leu Ile Cys Asn Val Gln Ala Met Glu Glu Met Met Met Glu		185
	190	195
Met Lys Tyr Asn Thr Lys Lys Ala Pro Leu Gly Lys Leu Thr Val Ala		200
	205	210
Gln Ile Lys Ala Gly Tyr Gln Ser Leu Lys Lys Ile Glu Asp Cys Ile		215
	220	225
Arg Ala Gly Gln His Gly Arg Ala Leu Met Glu Ala Cys Asn Glu Phe		230
	235	240
Tyr Thr Arg Ile Pro His Asp Phe Gly Leu Arg Thr Pro Pro Leu Ile		245
	250	255
Arg Thr Gln Lys Glu Leu Ser Glu Lys Ile Gln Leu Leu Glu Ala Leu		260
	265	270
Gly Asp Ile Glu Ile Ala Ile Lys Leu Val Lys Thr Glu Leu Gln Ser		275
	280	285
Pro Glu His Pro Leu Asp Gln His Tyr Arg Asn Leu His Cys Ala Leu		290
	295	300
Arg Pro Leu Asp His Glu Ser Tyr Glu Phe Lys Val Ile Ser Gln Tyr		305
	310	315
Leu Gln Ser Thr His Ala Pro Thr His Ser Asp Tyr Thr Met Thr Leu		320
	325	330
Leu Asp Leu Phe Glu Val Glu Lys Asp Gly Glu Lys Glu Ala Phe Arg		335
	340	345
Glu Asp Leu His Asn Arg Met Leu Leu Trp His Gly Ser Arg Met Ser		350
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Asn Trp Val Gly Ile Leu Ser His Gly Leu Arg Ile Ala Pro Pro Glu		365
	370	375
Ala Pro Ile Thr Gly Tyr Met Phe Gly Lys Gly Ile Tyr Phe Ala Asp		380
	385	390
Met Ser Ser Lys Ser Ala Asn Tyr Cys Phe Ala Ser Arg Leu Lys Asn		395
	400	405
Thr Gly Leu Leu Leu Leu Ser Glu Val Ala Leu Gly Gln Cys Asn Glu		410
	415	420
Leu Leu Glu Ala Asn Pro Lys Ala Glu Gly Leu Leu Gln Gly Lys His		425
	430	435
Ser Thr Lys Gly Leu Gly Lys Met Ala Pro Ser Ser Ala His Phe Val		440
	445	450
Thr Leu Asn Gly Ser Thr Val Pro Leu Gly Pro Ala Ser Asp Thr Gly		455
	460	465
	470	475
	480	



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<210> 5348  
 <211> 694  
 <212> PRT  
 <213> Homo sapiens

<400> 5348  
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 Tyr Leu Leu Leu Pro Pro Pro Thr Leu Leu Gln Asp Glu Leu Leu Phe  
 35 40 45  
 Leu Gly Gly Pro Ala Ser Ser Ala Tyr Ala Leu Ser Pro Phe Ser Ala  
 50 55 60  
 Ser Gly Gly Trp Gly Arg Ala Gly His Leu His Pro Lys Gly Arg Glu  
 65 70 75 80  
 Leu Asp Pro Ala Ala Pro Pro Glu Gly Gln Leu Leu Arg Glu Val Arg  
 85 90 95  
 Ala Leu Gly Val Pro Phe Val Pro Arg Thr Ser Val Asp Ala Trp Leu  
 100 105 110  
 Val His Ser Val Ala Ala Gly Ser Ala Asp Glu Ala His Gly Leu Leu  
 115 120 125  
 Gly Ala Ala Ala Ala Ser Ser Thr Gly Gly Ala Gly Ala Ser Val Asp  
 130 135 140  
 Gly Gly Ser Gln Ala Val Gln Gly Gly Cys Gly Asp Ser Arg Ala Ala  
 145 150 155 160  
 Arg Ser Gly Pro Leu Asp Ala Gly Glu Glu Glu Lys Ala Pro Ala Glu  
 165 170 175  
 Pro Thr Ala Gln Val Pro Asp Ala Gly Gly Cys Ala Ser Glu Glu Asn  
 180 185 190  
 Gly Val Leu Arg Glu Lys His Glu Ala Val Asp His Ser Ser Gln His  
 195 200 205  
 Glu Glu Asn Glu Glu Arg Val Ser Ala Gln Lys Glu Asn Ser Leu Gln  
 210 215 220  
 Gln Asn Asp Asp Asp Glu Asn Lys Ile Ala Glu Lys Pro Asp Trp Glu  
 225 230 235 240  
 Ala Glu Lys Thr Thr Glu Ser Arg Asn Glu Arg His Leu Asn Gly Thr  
 245 250 255  
 Asp Thr Ser Phe Ser Leu Glu Asp Leu Phe Gln Leu Leu Ser Ser Gln  
 260 265 270  
 Pro Glu Asn Ser Leu Glu Gly Ile Ser Leu Gly Asp Ile Pro Leu Pro  
 275 280 285  
 Gly Ser Ile Ser Asp Gly Met Asn Ser Ser Ala His Tyr His Val Asn  
 290 295 300  
 Phe Ser Gln Ala Ile Ser Gln Asp Val Asn Leu His Glu Ala Ile Leu  
 305 310 315 320  
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 325 330 335  
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      370              375              380
Asp Ile Asn Ile Phe Asp Glu Ile Asn Leu Met Ser Leu Ala Thr Glu
      385              390              395              400
Asp Asn Phe Asp Pro Ile Asp Val Ser Gln Leu Phe Asp Glu Ser Asp
      405              410              415
Ser Asp Ser Gly Leu Ser Leu Asp Ser Ser His Asn Asn Thr Ser Val
      420              425              430
Ile Lys Ser Asn Ser Ser His Ser Val Cys Asp Glu Gly Ala Ile Gly
      435              440              445
Tyr Cys Thr Asp His Glu Ser Ser Ser His His Asp Leu Glu Gly Ala
      450              455              460
Val Gly Gly Tyr Tyr Pro Glu Pro Ser Lys Leu Cys His Leu Asp Gln
      465              470              475              480
Ser Asp Ser Asp Phe His Gly Asp Leu Thr Phe Gln His Val Phe His
      485              490              495
Asn His Thr Tyr His Leu Gln Pro Thr Ala Pro Glu Ser Thr Ser Glu
      500              505              510
Pro Phe Pro Trp Pro Gly Lys Ser Gln Lys Ile Arg Ser Arg Tyr Leu
      515              520              525
Glu Asp Thr Asp Arg Asn Leu Ser Arg Asp Glu Gln Arg Ala Lys Ala
      530              535              540
Leu His Ile Pro Phe Ser Val Asp Glu Ile Val Gly Met Pro Val Asp
      545              550              555              560
Ser Phe Asn Ser Met Leu Ser Arg Tyr Tyr Leu Thr Asp Leu Gln Val
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Asp Ile Arg Arg Gly Lys Asn Lys Val Ala Ala
      580              585              590
Gln Asn Cys Arg Lys Arg Lys Leu Asp Ile Ile Leu Asn Leu Glu Asp
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Asp Val Cys Asn Leu Gln Ala Lys Lys Glu Thr Leu Lys Arg Glu Gln
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Val Asn Pro Asn His Tyr Ala Leu Gln Cys Thr His Asp Gly Ser Ile
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Leu Ile Val Pro Lys Glu Leu Val Ala Ser Gly His Lys Lys Glu Thr
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&lt;210&gt; 5349

&lt;211&gt; 425

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5349

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 <213> Homo sapiens

<400> 5350  
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<210> 5354

<211> 605

<212> PRT

<213> Homo sapiens

<400> 5354

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 Ala Gly Phe Ser Ser Glu Ser Leu Cys Glu Arg Ile Leu Asp Ser Ser  
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 Cys Ser Leu Leu Ile Thr Thr Asp Ala Phe Tyr Arg Gly Glu Lys Leu  
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 Val Asn Leu Lys Glu Leu Ala Asp Glu Ala Leu Gln Lys Cys Gln Glu  
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 Lys Gly Phe Pro Val Arg Cys Cys Ile Val Val Lys His Leu Gly Arg  
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 Ala Glu Leu Gly Met Gly Thr Pro Pro Ala Ser Pro Pro Gln Leu Arg  
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 Trp His Glu Leu Met Gln Glu Ala Gly Asp Glu Cys Glu Pro Glu Trp  
 195 200 205  
 Cys Asp Ala Glu Asp Pro Leu Phe Ile Leu Tyr Thr Ser Gly Ser Thr  
 210 215 220  
 Gly Lys Pro Lys Gly Val Val His Thr Val Gly Gly Tyr Met Leu Tyr  
 225 230 235 240  
 Val Ala Thr Thr Phe Lys Tyr Val Phe Asp Phe His Ala Glu Asp Val  
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Gln Val Leu Gly Thr Val Gly Glu Pro Ile Asn Pro Glu Ala Trp Leu
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Trp Tyr His Arg Val Val Gly Ala Gln Arg Cys Pro Ile Val Asp Thr
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Tyr Tyr Trp Ile Thr Gly Arg Ile Asp Asp Met Leu Asn Val Ser Gly
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Pro Ile Ala Thr Pro Asp Tyr Ile Gln Asn Ala Pro Gly Leu Pro Lys
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Ile Ser His Leu Phe Ser His Arg Cys Leu Thr Ile Gln
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&lt;210&gt; 5355

&lt;211&gt; 1596

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5355

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&lt;210&gt; 5356

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5356

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&lt;210&gt; 5357

&lt;211&gt; 1722

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5357

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&lt;210&gt; 5358

&lt;211&gt; 321

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5358

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10

15

Met Gly Ile Gln Thr Ser Pro Val Leu Leu Ala Ser Leu Gly Val Gly

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Leu Arg Leu Leu Asp Lys Thr Thr Val Ser His Asn Thr Lys Arg Phe
  65      70      75      80
Arg Phe Ala Leu Pro Thr Ala His His Thr Leu Gly Leu Pro Val Gly
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Lys His Ile Tyr Leu Ser Thr Arg Ile Asp Gly Ser Leu Val Ile Arg
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Pro Tyr Thr Pro Val Thr Ser Asp Glu Asp Gln Gly Tyr Val Asp Leu
      115      120      125
Val Ile Lys Val Tyr Leu Lys Gly Val His Pro Lys Phe Pro Glu Gly
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&lt;210&gt; 5359

&lt;211&gt; 5003

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5359

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&lt;210&gt; 5360

&lt;211&gt; 1406

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5360

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 720  
 ggaggcngac agggaggtga gagtgcagca ccagtaacac gangtggccg acgtggtgac  
 780  
 cctctatgg acagtgcctt antgctgagc agcttgagcg gaagcagctg gagtgcgagc  
 840  
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 894

&lt;210&gt; 5364

&lt;211&gt; 187

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5364

Ala	Ala	Leu	Pro	Ser	Arg	Cys	Pro	Leu	Gln	Pro	Arg	Gln	Pro	Trp	Arg
1				5					10					15	
Arg	Trp	Arg	Lys	Arg	Ala	Leu	Gly	Arg	Leu	Gln	Gly	Xaa	Gly	Pro	Gln
		20						25					30		
Pro	Gly	Leu	Tyr	Ser	Tyr	Ile	Arg	Asp	Asp	Leu	Phe	Thr	Ser	Glu	Ile
		35				40						45			
Phe	Lys	Leu	Glu	Leu	Gln	Asn	Ala	Pro	Arg	His	Ala	Ser	Phe	Ser	Asp
	50					55					60				
Val	Arg	Arg	Phe	Leu	Gly	Arg	Phe	Gly	Leu	Gln	Pro	His	Lys	Thr	Lys
65					70					75					80
Leu	Phe	Gly	Gln	Pro	Cys	Ala	Phe	Val	Thr	Phe	Arg	Ser	Ala	Ala	
			85					90						95	
Glu	Arg	Asp	Lys	Ala	Leu	Arg	Val	Leu	His	Gly	Ala	Leu	Trp	Lys	Gly
		100						105					110		
Arg	Pro	Leu	Ser	Val	Ala	Trp	Pro	Gly	Pro	Arg	Pro	Thr	Pro	Trp	Pro
		115					120					125			
Gly	Gly	Gly	Xaa	Gln	Glu	Gly	Glu	Ser	Glu	Pro	Pro	Val	Thr	Arg	Xaa
		130				135					140				
Gly	Arg	Arg	Gly	Asp	Pro	Ser	Met	Asp	Ser	Ala	Leu	Xaa	Leu	Ser	Ser
145					150					155				160	
Leu	Ser	Gly	Ser	Ser	Trp	Ser	Ala	Ser	Arg	Cys	Cys	Arg	Asn	Xaa	Ala
			165					170						175	
Gln	Glu	Ile	Gly	Ser	Thr	Asn	Arg	Ala	Leu	Arg					
			180					185							

&lt;210&gt; 5365

&lt;211&gt; 1824

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5365

cagcctttcc cggcagcgag cgctcggcca ggtgcactag gcgtgtgctg ggcceccctt  
60  
ccccgcgagt ccctcaagcg ggaacctgcc tcgtgtctcc caggagccat ggaggtgtg  
120  
gaactcgcca gaaaactgca ggaggaagct acgtgctcca tctgtctgga ttacttcaca  
180  
gacctgtga tgaccacctg tggccacaac ttctgccgag cctgcaccca gctgagctgg  
240  
gaaaaggcga ggggcaagaa ggggaggcgg aagcggaaag gctccttccc ctgccccgag  
300  
tgacagagaga tgtccccga gaggaacctg ctgcccaccc ggctgctgac caaggtggcc  
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420  
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480  
cgggagcacc ggctgcacag ggtgctgccc gccgaggagg cagtgcaggg gtacaagtgtg  
540  
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600  
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660  
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720  
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780  
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agtgtgcagt gccagaggt tgccecccca accagaccca ggactgtgtg cagagtcccc  
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1020  
taccctacc tcctcctgta tgagagccgc cagaggcgct acctcggctc ttcgccggag  
1080  
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1140  
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1200  
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1260  
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1440  
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 aatataattg tgattagaac tgtcaaacaat taagagggtg tactgacaga tgcttcctag  
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 1824

<210> 5366

<211> 477

<212> PRT

<213> Homo sapiens

<400> 5366

Met	Glu	Ala	Val	Glu	Leu	Ala	Arg	Lys	Leu	Gln	Glu	Glu	Ala	Thr	Cys
1			5					10					15		
Ser	Ile	Cys	Leu	Asp	Tyr	Phe	Thr	Asp	Pro	Val	Met	Thr	Thr	Cys	Gly
		20					25					30			
His	Asn	Phe	Cys	Arg	Ala	Cys	Ile	Gln	Leu	Ser	Trp	Glu	Lys	Ala	Arg
		35				40					45				
Gly	Lys	Lys	Gly	Arg	Arg	Lys	Arg	Lys	Gly	Ser	Phe	Pro	Cys	Pro	Glu
	50				55				60						
Cys	Arg	Glu	Met	Ser	Pro	Gln	Arg	Asn	Leu	Leu	Pro	Asn	Arg	Leu	Leu
65				70				75						80	
Thr	Lys	Val	Ala	Glu	Met	Ala	Gln	Gln	His	Pro	Gly	Leu	Gln	Lys	Gln
			85					90					95		
Asp	Leu	Cys	Gln	Glu	His	His	Glu	Pro	Leu	Lys	Leu	Phe	Cys	Gln	Lys
		100						105					110		
Asp	Gln	Ser	Pro	Ile	Cys	Val	Val	Cys	Arg	Glu	Ser	Arg	Glu	His	Arg
	115						120					125			
Leu	His	Arg	Val	Leu	Pro	Ala	Glu	Glu	Ala	Val	Gln	Gly	Tyr	Lys	Leu
	130					135					140				
Lys	Leu	Glu	Glu	Asp	Met	Glu	Tyr	Leu	Arg	Glu	Gln	Ile	Thr	Arg	Thr
145				150				155						160	
Gly	Asn	Leu	Gln	Ala	Arg	Glu	Glu	Gln	Ser	Leu	Ala	Glu	Trp	Gln	Gly
			165					170					175		
Lys	Val	Lys	Glu	Arg	Arg	Glu	Arg	Ile	Val	Leu	Glu	Phe	Glu	Lys	Met
		180					185					190			
Asn	Leu	Tyr	Leu	Val	Glu	Glu	Glu	Gln	Arg	Leu	Leu	Gln	Ala	Leu	Glu
	195						200					205			
Thr	Glu	Glu	Glu	Glu	Thr	Ala	Ser	Arg	Leu	Arg	Glu	Ser	Val	Ala	Cys
	210					215					220				
Leu	Asp	Arg	Gln	Gly	His	Ser	Leu	Glu	Leu	Leu	Leu	Gln	Leu	Glu	
225				230					235					240	
Glu	Arg	Ser	Thr	Gln	Gly	Pro	Leu	Gln	Met	Leu	Gln	Asp	Met	Lys	Glu
			245					250					255		
Pro	Leu	Ser	Arg	Lys	Asn	Asn	Val	Ser	Val	Gln	Cys	Pro	Glu	Val	Ala
	260							265					270		
Pro	Pro	Thr	Arg	Pro	Arg	Thr	Val	Cys	Arg	Val	Pro	Gly	Gln	Ile	Glu

```

      275              280              285
Val Leu Arg Gly Phe Leu Glu Asp Val Val Pro Asp Ala Thr Ser Ala
 290              295              300
Tyr Pro Tyr Leu Leu Leu Tyr Glu Ser Arg Gln Arg Arg Tyr Leu Gly
 305              310              315              320
Ser Ser Pro Glu Gly Ser Gly Phe Cys Ser Lys Asp Arg Phe Val Ala
      325              330              335
Tyr Pro Cys Ala Val Gly Gln Thr Ala Phe Ser Ser Gly Arg His Tyr
      340              345              350
Trp Glu Val Gly Met Asn Ile Thr Gly Asp Ala Leu Trp Ala Leu Gly
      355              360              365
Val Cys Arg Asp Asn Val Ser Arg Lys Asp Arg Val Leu Lys Cys Pro
      370              375              380
Glu Asn Gly Phe Trp Val Val Gln Leu Ser Lys Gly Thr Lys Tyr Leu
 385              390              395              400
Ser Thr Phe Ser Ala Leu Thr Pro Val Met Leu Met Glu Pro Pro Ser
      405              410              415
His Met Gly Ile Phe Leu Asp Phe Glu Ala Gly Glu Val Ser Phe Tyr
      420              425              430
Ser Val Ser Asp Gly Ser His Leu His Thr Tyr Ser Gln Ala Thr Phe
      435              440              445
Pro Gly Pro Leu Gln Pro Phe Phe Cys Leu Gly Ala Pro Lys Ser Gly
      450              455              460
Gln Met Val Ile Ser Thr Val Thr Met Trp Val Lys Gly
 465              470              475

```

&lt;210&gt; 5367

&lt;211&gt; 549

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5367

```

nntcctcttc ccctcatc tctccccct cgtcttcagg aggccggtgg gcaggagctg
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ggatctcggg tggctgcatg cgtgtctcct tgggggaagt ctcggggaa gtaggctgtg
120
gagtctcagg ggctggggat gctgcccccg aagcccccta cttttgggga gttcctgtcc
180
cagcacaaag ctgaggccag cagccgcaga aggagaaaga gcagtcggcc ccaggccaag
240
gcagcgccca gggcctacag tgaccatgat gaccgctggg agacaaaaga aggggcagca
300
tccccagccc ctgagactcc acagcctact tccccgaga cttcccccaa ggagacccc
360
atgcagccac ccgagatccc agctcctgcc caccggcctc ctgaagacga gggggaagag
420
aatgaggggg aagaggatga agaattgggag gacataagtg aggatgagga agaggaggag
480
atcgaggttg aagaaggatg tgaggaggaa ccagcccaag accaccaagc cccagaggct
540
gccccacc
549

```

&lt;210&gt; 5368

&lt;211&gt; 137

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5368

```

Met Leu Pro Pro Lys Pro Pro Thr Phe Gly Glu Phe Leu Ser Gln His
 1          5          10          15
Lys Ala Glu Ala Ser Ser Arg Arg Arg Lys Ser Ser Arg Pro Gln
 20          25          30
Ala Lys Ala Ala Pro Arg Ala Tyr Ser Asp His Asp Asp Arg Trp Glu
 35          40          45
Thr Lys Glu Gly Ala Ala Ser Pro Ala Pro Glu Thr Pro Gln Pro Thr
 50          55          60
Ser Pro Glu Thr Ser Pro Lys Glu Thr Pro Met Gln Pro Pro Glu Ile
 65          70          75          80
Pro Ala Pro Ala His Arg Pro Pro Glu Asp Glu Gly Glu Glu Asn Glu
 85          90          95
Gly Glu Glu Asp Glu Glu Trp Glu Asp Ile Ser Glu Asp Glu Glu Glu
100          105          110
Glu Glu Ile Glu Val Glu Glu Gly Asp Glu Glu Glu Pro Ala Gln Asp
115          120          125
His Gln Ala Pro Glu Ala Ala Pro Thr
130          135

```

&lt;210&gt; 5369

&lt;211&gt; 646

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5369

```

ngggaggcgg gaggcggcgc cgccgctcca gctgcgagtc cgcccgccgc ccgcccgcgc
60
cgccgcgggc tcgggtccgc gcccgccatg gcccgccctga cggagagcga ggcgcggcgg
120
cagcagcagc agctcctgca gccgcggccc tcgcccgtgg gcagcagcgg gcccgagccc
180
ccccgggggc agcccgacgg catgaaggac ctggacgcca tcaaactctt cgtgggccag
240
atcccgcggc acctggacga gaaggacctc aagccgctct tcgagcagtt cggccgcatc
300
tacgagctca cgggtgctcaa agaccctac acggggatgc acaaaggtag gcgcccggcc
360
ccctccccc tctccccc cctccgcctc ccacccacc ttccggcatc ttctctcccc
420
catcaccatc cctcctctgc tcacctccct cctctgcctg cctctgccgg agcatcggtt
480
cttaccctcc ccctccacc caccctcct cccctctctg ggggtgcagc tgacagatcc
540
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600
tctctctctc cctctctctc tccctctctc tctcccttct tcttct
646

```

&lt;210&gt; 5370

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5370

```

Met Lys Asp Leu Asp Ala Ile Lys Leu Phe Val Gly Gln Ile Pro Arg
 1             5             10             15
His Leu Asp Glu Lys Asp Leu Lys Pro Leu Phe Glu Gln Phe Gly Arg
      20             25             30
Ile Tyr Glu Leu Thr Val Leu Lys Asp Pro Tyr Thr Gly Met His Lys
      35             40             45
Gly Gly Arg Pro Ala Pro Ser Pro Leu Ser Pro Ser Leu Arg Leu Pro
      50             55             60
Pro His Leu Pro Ala Ser Ser Leu Pro His His His Pro Ser Ser Ala
      65             70             75             80
His Leu Pro Pro Leu Pro Ala Ser Ala Gly Ala Ser Val Leu Thr Pro
      85             90             95
Ser Leu Pro Pro Thr Pro Pro Pro Leu Ser Gly Gly Ala Ala Asp Arg
      100            105            110
Ser Glu Arg Ala Pro Ser Pro Pro Pro Pro Leu Pro Pro Ser Pro
      115            120            125
Pro Ser Gly Ile Ser Ser Leu Ser Pro Ser Leu Ser Pro Ser Leu Ser
      130            135            140
Pro Phe Leu Phe
145

```

&lt;210&gt; 5371

&lt;211&gt; 1177

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5371

```

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agcccgcaaa cggagctgcg gtcggacttc cagtgcgttg tgggcttcgg gggcattcac
120
tccacgccgt ccaactgtct cagcgaccag gccaaagtatc taaacccctt actgggagag
180
tggaagcact tcaactgcct cctggccccc cgcatgtcca accagggcat cgcggtgctc
240
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300
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360
ggagcacgcc gacctgtcnn cgtgtgtgtt gtaggcaggt acatctacgc tgtggcgggc
420
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480
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540
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600
gatccaggca gcaacacttg gcacacactg gctgatgggc ctgtgcggcg cgcctggcac
660

```

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 720  
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 780  
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 960  
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 1080  
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 1177

<210> 5372

<211> 368

<212> PRT

<213> Homo sapiens

<400> 5372

Xaa	His	Ser	Ala	Ser	Ala	Leu	Met	Tyr	His	Arg	Asn	Glu	Ser	Leu	Gln
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Pro	Ser	Leu	Gln	Ser	Pro	Gln	Thr	Glu	Leu	Arg	Ser	Asp	Phe	Gln	Cys
		20						25					30		
Val	Val	Gly	Phe	Gly	Gly	Ile	His	Ser	Thr	Pro	Ser	Thr	Val	Leu	Ser
		35				40						45			
Asp	Gln	Ala	Lys	Tyr	Leu	Asn	Pro	Leu	Leu	Gly	Glu	Trp	Lys	His	Phe
	50				55					60					
Thr	Ala	Ser	Leu	Ala	Pro	Arg	Met	Ser	Asn	Gln	Gly	Ile	Ala	Val	Leu
65				70					75				80		
Asn	Asn	Phe	Val	Tyr	Leu	Ile	Gly	Gly	Asp	Asn	Asn	Val	Gln	Gly	Phe
		85						90					95		
Arg	Ala	Glu	Ser	Arg	Cys	Trp	Arg	Tyr	Asp	Pro	Arg	His	Asn	Arg	Trp
		100						105					110		
Xaa	Pro	Asp	Pro	Val	Pro	Ala	Ala	Gly	Ala	Arg	Arg	Pro	Val	Xaa	Val
		115				120						125			
Cys	Val	Val	Gly	Arg	Tyr	Ile	Tyr	Ala	Val	Ala	Gly	Arg	Asp	Tyr	His
	130					135				140					
Asn	Asp	Leu	Asn	Ala	Val	Glu	Arg	Tyr	Asp	Pro	Ala	Thr	Asn	Ser	Trp
145				150					155					160	
Ala	Tyr	Val	Ala	Pro	Leu	Lys	Arg	Glu	Val	Tyr	Ala	His	Ala	Gly	Ala
			165					170					175		
Thr	Leu	Glu	Gly	Lys	Met	Tyr	Ile	Thr	Cys	Gly	Arg	Arg	Gly	Glu	Asp
	180							185					190		
Tyr	Leu	Lys	Glu	Thr	His	Cys	Tyr	Asp	Pro	Gly	Ser	Asn	Thr	Trp	His
	195					200						205			
Thr	Leu	Ala	Asp	Gly	Pro	Val	Arg	Arg	Ala	Trp	His	Gly	Met	Ala	Thr
	210					215				220					
Leu	Leu	Asn	Lys	Leu	Tyr	Val	Ile	Gly	Gly	Ser	Asn	Asn	Asp	Ala	Gly

```

225          230          235          240
Tyr Arg Arg Asp Val His Gln Val Ala Cys Tyr Ser Cys Thr Ser Gly
          245          250          255
Gln Trp Ser Ser Val Cys Pro Leu Pro Ala Gly His Gly Glu Pro Gly
          260          265          270
Ile Ala Val Leu Asp Asn Arg Ile Tyr Val Leu Gly Gly Arg Ser His
          275          280          285
Asn Arg Gly Ser Arg Thr Gly Tyr Val His Ile Tyr Asp Val Glu Lys
          290          295          300
Asp Cys Trp Glu Glu Gly Pro Gln Leu Asp Asn Ser Ile Ser Gly Leu
305          310          315          320
Ala Ala Cys Val Leu Thr Leu Pro Arg Ser Leu Leu Leu Glu Pro Pro
          325          330          335
Arg Gly Thr Pro Asp Arg Ser Gln Ala Asp Pro Asp Phe Ala Ser Glu
          340          345          350
Val Met Ser Val Ser Asp Trp Glu Glu Phe Asp Asn Ser Ser Glu Asp
          355          360          365

```

&lt;210&gt; 5373

&lt;211&gt; 4221

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5373

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120
gactacttgg aagggaaaat ctcccttgag gagttcgaac ggcggagaga agagagaaaa
180
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300
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360
cttgagagaga atgaagatga tgaggaggaa gaggaagaag aggaggagga ggaggaggag
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gaagaaacac ctgagcaacc cactgcgggc gatgtatttg tattggagat ggttctcaat
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cgtgaaacca agaaaatgat gaaagagaaa aggcctcgga gtaaaacttc cagagctctg
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600
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660
gccatgatat atgaggacca aggtgacatg gaaaaatcat tgcagtttga gttgattgct
720
gcgcatttaa atcccagtga cacagaagaa tgggttagac tggcagaaat gtctctggaa
780
caagacaata ttaagcaggc tattttttgc tatacaaaag ctcttaaata tgaacctact
840
aatgtccgtt atctgtggga gcgatcaagc ctttatgaac agatgggtga tcataaaatg
900

```



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960  
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1920  
aaagcaatat ttgctgtgct cacaagcgtc ttgacaaagg atgactggtg gaatcttctg  
1980  
ttgaaggcca tatactcctt atgtgaccta tcccatttc aagaggctga gttgcttgta  
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Pro Glu Asp Met Gly Asp Leu Tyr Leu Asp Val Ala Glu Ala Phe Leu
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Asp Val Gly Glu Tyr Asn Ser Ala Leu Pro Leu Leu Ser Ala Leu Val
      435      440      445
Cys Ser Glu Arg Tyr Asn Leu Ala Val Val Trp Leu Arg His Ala Glu
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Cys Leu Lys Ala Leu Gly Tyr Met Glu Arg Ala Ala Glu Ser Tyr Gly
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Lys Val Val Asp Leu Ala Pro Leu His Leu Asp Ala Arg Ile Ser Leu
      485      490      495
Ser Thr Leu Gln Gln Gln Leu Gly Gln Pro Glu Lys Ala Leu Glu Ala
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Leu Glu Pro Met Tyr Asp Pro Asp Thr Leu Ala Gln Asp Ala Asn Ala
      515      520      525
Ala Gln Gln Glu Leu Lys Leu Leu Leu His Arg Ser Thr Leu Leu Phe
      530      535      540
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      545      550      555      560
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Ser Phe Tyr Asp Asp Arg Gln Lys Arg Lys Glu Leu Glu Tyr Phe Gly
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Leu Ser Ala Ala Ile Leu Asp Lys Asn Phe Arg Lys Ala Tyr Asn Tyr
      675      680      685
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      690      695      700
Ile Phe Asn Gln Val Thr Met His Ser Gln Asp Val Arg His His Arg
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Phe Cys Leu Arg Leu Met Leu Lys Asn Pro Glu Asn His Ala Leu Cys
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Tyr Ser Phe Cys Ile Gly Leu Thr Phe Ile His Met Ala Ser Gln Lys

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Tyr Tyr Gln Lys Ala Leu Glu Leu Pro Pro Leu Val Val Glu Gly Ile
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Val Gln Leu Lys Ser Ile Ser Leu Phe Ala Phe Ser Glu Ala Ser Pro

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 Cys His Arg Pro Arg Thr Ile Ser Ile Phe Asn Pro Arg Asn His Thr  
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<212> PRT

<213> Homo sapiens

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<210> 5380

<211> 903

<212> PRT

<213> Homo sapiens

<400> 5380

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			20					25					30		
Ser	Cys	Ala	Pro	Ala	Leu	Leu	Gly	Ser	Gly	Cys	Gly	Ser	Gly	Glu	Ser
		35					40					45			
Cys	Asp	Arg	Gly	Cys	Leu	Ala	Ile	Leu	Ala	Ser	Thr	Ser	Ala	Thr	
	50					55				60					
Gln	Ala	Arg	Met	Val	Leu	Arg	Cys	Cys	Ser	Glu	Phe	Ile	Glu	Ala	His
	65				70					75				80	
Gly	Val	Val	Asp	Gly	Ile	Tyr	Arg	Leu	Ser	Gly	Val	Ser	Ser	Asn	Ile
			85					90						95	
Gln	Arg	Leu	Arg	His	Glu	Phe	Asp	Ser	Glu	Arg	Ile	Pro	Glu	Leu	Ser
		100						105					110		
Gly	Pro	Ala	Phe	Leu	Gln	Asp	Ile	His	Ser	Val	Ser	Ser	Leu	Cys	Lys
	115					120						125			
Leu	Tyr	Phe	Arg	Glu	Leu	Pro	Asn	Pro	Leu	Leu	Thr	Tyr	Gln	Leu	Tyr
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Gly	Lys	Phe	Ser	Glu	Ala	Met	Ser	Val	Pro	Gly	Glu	Glu	Glu	Arg	Leu
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Val	Arg	Val	His	Asp	Val	Ile	Gln	Gln	Leu	Pro	Pro	Pro	His	Tyr	Arg
			165					170						175	
Thr	Leu	Glu	Tyr	Leu	Leu	Arg	His	Leu	Ala	Arg	Met	Ala	Arg	His	Ser
	180							185					190		
Ala	Asn	Thr	Ser	Met	His	Ala	Arg	Asn	Leu	Ala	Ile	Val	Trp	Ala	Pro
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Asn	Leu	Leu	Arg	Ser	Met	Glu	Leu	Glu	Ser	Val	Gly	Met	Gly	Gly	Ala
	210					215					220				
Ala	Ala	Phe	Arg	Glu	Val	Arg	Val	Gln	Ser	Val	Val	Val	Glu	Phe	Leu

225                      230                      235                      240  
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                                  245                      250                      255  
 Leu Asp Pro Ala Gly Arg Cys Leu Leu Pro Arg Pro Lys Ser Leu Ala  
                                  260                      265                      270  
 Gly Ser Cys Pro Ser Thr Arg Leu Leu Thr Leu Glu Glu Ala Gln Ala  
                                  275                      280                      285  
 Arg Thr Gln Gly Arg Leu Gly Thr Pro Thr Glu Pro Thr Thr Pro Lys  
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 Ala Pro Ala Ser Pro Ala Glu Arg Arg Lys Gly Glu Arg Gly Glu Lys  
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 Gln Arg Lys Pro Gly Gly Ser Ser Trp Lys Thr Phe Phe Ala Leu Gly  
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 Arg Gly Pro Ser Val Pro Arg Lys Lys Pro Leu Pro Trp Leu Gly Gly  
                                  340                      345                      350  
 Thr Arg Ala Pro Pro Gln Pro Ser Ala Trp Leu Asp Asp Gly Asp Glu  
                                  355                      360                      365  
 Leu Asp Phe Ser Pro Pro Arg Cys Leu Glu Gly Leu Arg Gly Leu Asp  
 370                                   375                      380  
 Phe Asp Pro Leu Thr Phe Arg Cys Ser Ser Pro Thr Pro Gly Asp Pro  
 385                                   390                      395                      400  
 Ala Pro Pro Ala Ser Pro Ala Pro Pro Ala Pro Ala Ser Ala Phe Pro  
                                  405                      410                      415  
 Pro Arg Val Thr Pro Gln Ala Ile Ser Pro Arg Gly Pro Thr Ser Pro  
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 Ala Ser Pro Ala Ala Leu Asp Ile Ser Glu Pro Leu Ala Val Ser Val  
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 Pro Pro Ala Val Leu Glu Leu Leu Gly Ala Gly Gly Ala Pro Ala Ser  
                                  450                      455                      460  
 Ala Thr Pro Thr Pro Ala Leu Ser Pro Gly Arg Ser Leu Arg Pro His  
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 Leu Ile Pro Leu Leu Leu Arg Gly Ala Glu Ala Pro Leu Thr Asp Ala  
                                  485                      490                      495  
 Cys Gln Gln Glu Met Cys Ser Lys Leu Arg Gly Ala Gln Gly Pro Leu  
                                  500                      505                      510  
 Ala Arg Leu Met Ala Leu Ala Leu Ala Glu Arg Ala Gln Gln Val Ala  
                                  515                      520                      525  
 Glu Gln Gln Ser Gln Gln Glu Cys Gly Gly Thr Pro Pro Ala Ser Gln  
                                  530                      535                      540  
 Ser Pro Phe His Arg Ser Leu Ser Leu Glu Val Gly Gly Glu Pro Leu  
 545                                   550                      555                      560  
 Gly Thr Ser Gly Ser Gly Pro Pro Pro Asn Ser Leu Ala His Pro Gly  
                                  565                      570                      575  
 Ala Trp Val Pro Gly Pro Pro Pro Tyr Leu Pro Arg Gln Gln Ser Asp  
                                  580                      585                      590  
 Gly Ser Leu Leu Arg Ser Gln Arg Pro Met Gly Thr Ser Arg Arg Gly  
                                  595                      600                      605  
 Leu Arg Gly Pro Ala Gln Val Ser Ala Gln Leu Arg Ala Gly Gly Gly  
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 Gly Arg Asp Ala Pro Glu Ala Ala Ala Gln Ser Pro Cys Ser Val Pro  
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 Ser Gln Val Pro Thr Pro Gly Phe Phe Ser Pro Ala Pro Arg Glu Cys  
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660 665 670  
 Pro Pro Ser Phe Gln Pro Ser Ser Pro Ala Pro Val Trp Arg Ser Ser  
 675 680 685  
 Leu Gly Pro Pro Ala Pro Leu Asp Arg Gly Glu Asn Leu Tyr Tyr Glu  
 690 695 700  
 Ile Gly Ala Ser Glu Gly Ser Pro Tyr Ser Gly Pro Thr Arg Ser Trp  
 705 710 715 720  
 Ser Pro Phe Arg Ser Met Pro Pro Asp Arg Leu Asn Ala Ser Tyr Gly  
 725 730 735  
 Met Leu Gly Gln Ser Pro Pro Leu His Arg Ser Pro Asp Phe Leu Leu  
 740 745 750  
 Ser Tyr Pro Pro Ala Pro Ser Cys Phe Pro Pro Asp His Leu Gly Tyr  
 755 760 765  
 Ser Ala Pro Gln His Pro Ala Arg Arg Pro Thr Pro Pro Glu Pro Leu  
 770 775 780  
 Tyr Val Asn Leu Ala Leu Gly Pro Arg Gly Pro Ser Pro Ala Ser Ser  
 785 790 795 800  
 Ser Ser Ser Ser Pro Pro Ala His Pro Arg Ser Arg Ser Asp Pro Gly  
 805 810 815  
 Pro Pro Val Pro Arg Leu Pro Gln Lys Gln Arg Ala Pro Trp Gly Pro  
 820 825 830  
 Arg Thr Pro His Arg Val Pro Gly Pro Trp Gly Pro Pro Glu Pro Leu  
 835 840 845  
 Leu Leu Tyr Arg Ala Ala Pro Pro Ala Tyr Gly Arg Gly Glu Leu  
 850 855 860  
 His Arg Gly Ser Leu Tyr Arg Asn Gly Gly Gln Arg Gly Glu Gly Ala  
 865 870 875 880  
 Gly Pro Pro Pro Pro Tyr Pro Thr Pro Ser Trp Ser Leu His Ser Glu  
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 Gly Gln Thr Arg Ser Tyr Cys  
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<210> 5381  
 <211> 1576  
 <212> DNA  
 <213> Homo sapiens

<400> 5381  
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 240  
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 420  
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 1576

&lt;210&gt; 5382

&lt;211&gt; 223

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5382

Xaa Met Ala Met Arg Pro Phe Phe Gly Ile Val Pro Val Leu Met Asp  
 1 5 10 15  
 Glu Lys Gly Ser Val Val Glu Gly Ser Asn Val Ser Gly Ala Leu Cys  
 20 25 30  
 Ile Ser Gln Ala Trp Pro Gly Met Ala Arg Thr Ile Tyr Gly Asp His  
 35 40 45  
 Gln Arg Phe Val Asp Ala Tyr Phe Lys Ala Tyr Pro Gly Tyr Tyr Phe  
 50 55 60  
 Thr Gly Asp Gly Ala Tyr Arg Thr Glu Gly Gly Tyr Tyr Gln Ile Thr

65		70		75		80									
Gly	Arg	Met	Asp	Asp	Val	Ile	Asn	Ile	Ser	Gly	His	Arg	Leu	Gly	Thr
			85						90					95	
Ala	Glu	Ile	Glu	Asp	Ala	Ile	Ala	Asp	His	Pro	Ala	Val	Pro	Glu	Ser
			100					105					110		
Ala	Val	Ile	Gly	Tyr	Pro	His	Asp	Ile	Lys	Gly	Glu	Ala	Ala	Phe	Ala
		115					120					125			
Phe	Ile	Val	Val	Lys	Asp	Ser	Ala	Gly	Asp	Ser	Asp	Val	Val	Val	Gln
	130					135					140				
Glu	Leu	Lys	Ser	Met	Val	Ala	Thr	Lys	Ile	Ala	Lys	Tyr	Ala	Val	Pro
145					150					155				160	
Asp	Glu	Ile	Leu	Val	Val	Lys	Arg	Leu	Pro	Lys	Thr	Arg	Ser	Gly	Lys
			165						170					175	
Val	Met	Arg	Arg	Leu	Leu	Arg	Lys	Ile	Ile	Thr	Ser	Glu	Ala	Gln	Glu
		180					185					190			
Leu	Gly	Asp	Thr	Thr	Thr	Leu	Glu	Asp	Pro	Ser	Ile	Ile	Ala	Glu	Ile
		195					200					205			
Leu	Ser	Val	Tyr	Gln	Lys	Cys	Lys	Asp	Lys	Gln	Ala	Ala	Ala	Lys	
	210					215					220				

&lt;210&gt; 5383

&lt;211&gt; 2027

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5383

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 1920  
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 1980  
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 2027

&lt;210&gt; 5384

&lt;211&gt; 508

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5384

Ile Val Ser Thr Gln Glu Lys Glu Leu Val Gln Pro Phe Ser Ser Leu  
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 Phe Pro Lys Val Glu Tyr Ile Ala Arg Ala Gly Ala Trp Ala Met Phe  
 20 25 30  
 Leu Asp Arg Pro Gln Gln Trp Leu Gln Leu Val Leu Leu Pro Pro Ala  
 35 40 45  
 Leu Phe Ile Pro Ser Thr Glu Asn Glu Glu Gln Arg Leu Ala Ser Ala

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      50      55      60
Arg Ala Val Pro Arg Asn Val Gln Pro Tyr Val Val Tyr Glu Glu Val
65      70      75      80
Thr Asn Val Trp Ile Asn Val His Asp Ile Phe Tyr Pro Phe Pro Gln
      85      90      95
Ser Glu Gly Glu Asp Glu Leu Cys Phe Leu Arg Ala Asn Glu Cys Lys
      100      105      110
Thr Gly Phe Cys His Leu Tyr Lys Val Thr Ala Val Leu Lys Ser Gln
      115      120      125
Gly Tyr Asp Trp Ser Glu Pro Phe Ser Pro Gly Glu Gly Glu Gln Ser
      130      135      140
Leu Thr Asn Ala Ile Trp Val Asn Glu Glu Thr Lys Leu Val Tyr Phe
145      150      155      160
Gln Gly Thr Lys Asp Thr Pro Leu Glu His His Leu Tyr Val Val Ser
      165      170      175
Tyr Glu Ala Ala Gly Glu Ile Val Arg Leu Thr Thr Pro Gly Phe Ser
      180      185      190
His Ser Cys Ser Met Ser Gln Asn Phe Asp Met Phe Val Ser His Tyr
      195      200      205
Ser Ser Val Ser Thr Pro Pro Cys Val His Val Tyr Lys Leu Ser Gly
      210      215      220
Pro Asp Asp Asp Pro Leu His Lys Gln Pro Arg Phe Trp Ala Ser Met
225      230      235      240
Met Glu Ala Ala Lys Ile Phe His Phe His Thr Arg Ser Asp Val Arg
      245      250      255
Leu Tyr Gly Met Ile Tyr Lys Pro His Ala Leu Gln Pro Gly Lys Lys
      260      265      270
His Pro Thr Val Leu Phe Val Tyr Gly Gly Pro Gln Val Gln Leu Val
      275      280      285
Asn Asn Ser Phe Lys Gly Ile Lys Tyr Leu Arg Leu Asn Thr Leu Ala
      290      295      300
Ser Leu Gly Tyr Ala Val Val Ile Asp Gly Arg Gly Ser Cys Gln
305      310      315      320
Arg Gly Leu Arg Phe Glu Gly Ala Leu Lys Asn Gln Met Gly Gln Val
      325      330      335
Glu Ile Glu Asp Gln Val Glu Gly Leu Gln Phe Val Ala Glu Lys Tyr
      340      345      350
Gly Phe Ile Asp Leu Ser Arg Val Ala Ile His Gly Trp Ser Tyr Gly
      355      360      365
Gly Phe Leu Ser Leu Met Gly Leu Ile His Lys Pro Gln Val Phe Lys
      370      375      380
Val Ala Ile Ala Gly Ala Pro Val Thr Val Trp Met Ala Tyr Asp Thr
385      390      395      400
Gly Tyr Thr Glu Arg Tyr Met Asp Val Pro Glu Asn Asn Gln His Gly
      405      410      415
Tyr Glu Ala Gly Ser Val Ala Leu His Val Glu Lys Leu Pro Asn Glu
      420      425      430
Pro Asn Arg Leu Leu Ile Leu His Gly Phe Leu Asp Glu Asn Val His
      435      440      445
Phe Phe His Thr Asn Phe Leu Val Ser Gln Leu Ile Arg Ala Gly Lys
      450      455      460
Pro Tyr Gln Leu Gln Val Ala Leu Pro Pro Val Ser Pro Gln Ile Tyr
465      470      475      480
Pro Asn Glu Arg His Ser Ile Arg Cys Pro Glu Ser Gly Glu His Tyr

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485                      490                      495  
 Glu Val Thr Leu Leu His Phe Leu Gln Glu Tyr Leu  
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<210> 5385  
 <211> 314  
 <212> DNA  
 <213> Homo sapiens

<400> 5385  
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 cctccccggg cccagccgct gggcagaggg ctgcatgctg gctggctggc caggctgggg  
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 ggtcccaacg catg  
 314

<210> 5386  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 5386  
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 Thr Trp Ser Ile Cys Cys Ser Trp Asn Arg Lys Glu Arg Ser Lys Lys  
                     20                      25                      30  
 Ser Val Pro Ser Pro Pro Arg Ala Gln Pro Leu Gly Arg Gly Leu His  
                     35                      40                      45  
 Ala Gly Trp Leu Ala Arg Leu Gly Gln Pro Gly Leu Leu Gly Pro Tyr  
                     50                      55                      60  
 Ala Ala Pro Thr Phe His Phe Leu Glu Met His Pro His Leu Gln Glu  
 65                      70                      75                      80  
 Asn Cys Phe Arg Lys Cys Leu Gln His Ser Arg Glu Trp Asn Lys Gln  
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 Gly Pro Asn Ala  
                     100

<210> 5387  
 <211> 375  
 <212> DNA  
 <213> Homo sapiens

<400> 5387  
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 375

<210> 5388

<211> 125

<212> PRT

<213> Homo sapiens

<400> 5388

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			20					25					30		
Phe	Thr	Trp	Cys	Phe	Cys	Phe	Ser	Met	Thr	Leu	Ile	Ile	Leu	Ile	Val
		35					40				45				
Glu	Leu	Cys	Gly	Leu	Gln	Ala	Arg	Phe	Pro	Leu	Ser	Trp	Arg	Asn	Phe
	50					55				60					
Pro	Ile	Thr	Phe	Ala	Cys	Tyr	Ala	Ala	Leu	Phe	Cys	Leu	Ser	Ala	Ser
65					70				75					80	
Ile	Ile	Tyr	Pro	Thr	Thr	Tyr	Val	Gln	Phe	Leu	Ser	His	Gly	Arg	Ser
			85					90					95		
Arg	Asp	His	Ala	Ile	Ala	Ala	Thr	Phe	Phe	Ser	Cys	Ile	Ala	Cys	Val
			100					105					110		
Ala	Tyr	Ala	Thr	Glu	Met	Ala	Trp	Thr	Arg	Ala	Arg	Ala			
			115				120					125			

<210> 5389

<211> 1711

<212> DNA

<213> Homo sapiens

<400> 5389

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 120  
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 180  
 gccgaagcca cccggccgcc ggctggggcc cgggggtgtg aggaagtgtc ccgaggcctc  
 240  
 gccgaggcct agcgccggct ttgtgtccga ggcggcggcg gcggcggggg gaggcggagc  
 300  
 cggggggcgc ctgcgggaag gcctctctc cgcgcaccgc gcgttttcgg cctaggccgc  
 360  
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 420

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 480  
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 540  
 aatccacgga gagagagacc cgccgggagg tgcggccgcg ctatggaccc ctgacccccg  
 600  
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&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

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3711

&lt;210&gt; 5396

&lt;211&gt; 760

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5396

Met Glu Ser Ser Pro Phe Asn Arg Arg Gln Trp Thr Ser Leu Ser Leu  
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Arg Val Thr Ala Lys Glu Leu Ser Leu Val Asn Lys Asn Lys Ser Ser  
20 25 30  
Ala Ile Val Glu Ile Phe Ser Lys Tyr Gln Lys Ala Ala Glu Glu Thr  
35 40 45  
Asn Met Glu Lys Lys Arg Ser Asn Thr Glu Asn Leu Ser Gln His Phe  
50 55 60  
Arg Lys Gly Thr Leu Thr Val Leu Lys Lys Lys Trp Glu Asn Pro Gly

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65          70          75          80
Leu Gly Ala Glu Ser His Thr Asp Ser Leu Arg Asn Ser Ser Thr Glu
      85          90          95
Ile Arg His Arg Ala Asp His Pro Pro Ala Glu Val Thr Ser His Ala
      100          105          110
Ala Ser Gly Ala Lys Ala Asp Gln Glu Glu Ile His Pro Arg Ser
      115          120          125
Arg Leu Arg Ser Pro Pro Glu Ala Leu Val Gln Gly Arg Tyr Pro His
      130          135          140
Ile Lys Asp Gly Glu Asp Leu Lys Asp His Ser Thr Glu Ser Lys Lys
      145          150          155          160
Met Glu Asn Cys Leu Gly Glu Ser Arg His Glu Val Glu Lys Ser Glu
      165          170          175
Ile Ser Glu Asn Thr Asp Ala Ser Gly Lys Ile Glu Lys Tyr Asn Val
      180          185          190
Pro Leu Asn Arg Leu Lys Met Met Phe Glu Lys Gly Glu Pro Thr Gln
      195          200          205
Thr Lys Ile Leu Arg Ala Gln Ser Arg Ser Ala Ser Gly Arg Lys Ile
      210          215          220
Ser Glu Asn Ser Tyr Ser Leu Asp Asp Leu Glu Ile Gly Pro Gly Gln
      225          230          235          240
Leu Ser Ser Ser Thr Phe Asp Ser Glu Lys Asn Glu Ser Arg Arg Asn
      245          250          255
Leu Glu Leu Pro Arg Leu Ser Glu Thr Ser Ile Lys Asp Arg Met Ala
      260          265          270
Lys Tyr Gln Ala Ala Val Ser Lys Gln Ser Ser Ser Thr Asn Tyr Thr
      275          280          285
Asn Glu Leu Lys Ala Ser Gly Gly Glu Ile Lys Ile His Lys Met Glu
      290          295          300
Gln Lys Glu Asn Val Pro Pro Gly Pro Glu Val Cys Ile Thr His Gln
      305          310          315          320
Glu Gly Glu Lys Ile Ser Ala Asn Glu Asn Ser Leu Ala Val Arg Ser
      325          330          335
Thr Pro Ala Glu Asp Asp Ser Pro Gly Asp Ser Gln Val Lys Ser Glu
      340          345          350
Val Gln Gln Pro Val His Pro Lys Pro Leu Ser Pro Asp Ser Arg Ala
      355          360          365
Ser Ser Leu Ser Glu Ser Ser Pro Pro Lys Ala Met Lys Lys Phe Gln
      370          375          380
Ala Pro Ala Arg Glu Thr Cys Val Glu Cys Gln Lys Thr Val Tyr Pro
      385          390          395          400
Met Glu Arg Leu Leu Ala Asn Gln Gln Val Phe His Ile Ser Cys Phe
      405          410          415
Arg Cys Ser Tyr Cys Asn Asn Lys Leu Ser Leu Gly Thr Tyr Ala Ser
      420          425          430
Leu His Gly Arg Ile Tyr Cys Lys Pro His Phe Asn Gln Leu Phe Lys
      435          440          445
Ser Lys Gly Asn Tyr Asp Glu Gly Phe Gly His Arg Pro His Lys Asp
      450          455          460
Leu Trp Ala Ser Lys Asn Glu Asn Glu Glu Ile Leu Glu Arg Pro Ala
      465          470          475          480
Gln Leu Ala Asn Ala Arg Glu Thr Pro His Ser Pro Gly Val Glu Asp
      485          490          495
Ala Pro Ile Ala Lys Val Gly Val Leu Ala Ala Ser Met Glu Ala Lys

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[illegible]

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<210> 5397
<211> 561
<212> DNA
<213> Homo sapiens
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accagctgag ccagaccagc attcccatth caccacctt tactctctca gatgcaaagt
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300
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420

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<210> 5398  
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 <212> PRT  
 <213> Homo sapiens

<400> 5398  
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 35 40 45  
 Ala Gln Gly Trp Ala Glu Ala Gly Arg Ala Val His Arg Glu Asp Pro  
 50 55 60  
 Arg Val Ser Leu Gly Leu Pro Arg Trp Leu Cys Pro Pro Phe Cys Leu  
 65 70 75 80  
 Gly Gly Ser Leu Arg Leu Gly Arg Ala Gln Arg Glu Gly Asp Pro Glu  
 85 90 95  
 Gly Leu Ala Asp Ser Gly Pro Pro Cys Glu Leu Arg Phe Glu Glu Glu  
 100 105 110  
 Ser Arg Pro Pro Arg Val Val Gly Glu Ser Thr Gly Arg Lys Ala Gly  
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 Arg Val Met Asn Gln Ile Ala Phe Met Arg  
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 <212> DNA  
 <213> Homo sapiens

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 240  
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 300  
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 360  
 ccacccagg cgagtatct gccgtcccag tcccagcaga ggtaccagg gcagcaggac  
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atgtctcagg aaggctatgg aactagatct caacctcctc tggcccccg aaaacctaac  
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 gttctacttt atattatgac atgattgaga agtttctaga cttcagggtt attttgtggt  
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 caatttttca aggtttacct tttaggagct ctgtagtcct ggataagtct atttcatgtg  
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<210> 5400  
 <211> 186  
 <212> PRT  
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<400> 5400  
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 20 25 30  
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 35 40 45  
 Pro Gln Gln Ser Ser Pro Tyr Pro Gly Gly Ser Tyr Gly Pro Pro Gly  
 50 55 60  
 Pro Gln Arg Tyr Pro Ile Gly Ile Gln Gly Arg Thr Pro Gly Ala Met  
 65 70 75 80  
 Ala Gly Met Gln Tyr Pro Gln Gln Gln Met Pro Pro Gln Tyr Gly Gln  
 85 90 95  
 Gln Gly Val Ser Gly Tyr Cys Gln Gln Gly Gln Gln Pro Tyr Tyr Ser  
 100 105 110  
 Gln Gln Pro Gln Pro Pro His Leu Pro Pro Gln Ala Gln Tyr Leu Pro  
 115 120 125  
 Ser Gln Ser Gln Gln Arg Tyr Gln Pro Gln Gln Asp Met Ser Gln Glu  
 130 135 140  
 Gly Tyr Gly Thr Arg Ser Gln Pro Pro Leu Ala Pro Gly Lys Pro Asn  
 145 150 155 160  
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 Val Arg His Tyr Cys Ala Asp Leu Glu Met  
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<210> 5401  
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 <212> DNA  
 <213> Homo sapiens

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420  
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480  
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540  
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720  
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 2674

&lt;210&gt; 5402

&lt;211&gt; 507

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5402

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Phe	Lys	Ala	Arg	Pro	Arg	Glu	Phe	Trp	Ala	Arg	Cys	Lys	Arg	Pro	Cys
			20					25					30		
Pro	Arg	His	Val	Ala	Asp	Met	Val	Ile	Ser	Glu	Ser	Met	Asp	Ile	Leu
		35					40					45			
Phe	Arg	Ile	Arg	Gly	Gly	Leu	Asp	Leu	Ala	Phe	Gln	Leu	Ala	Thr	Pro
		50				55				60					
Asn	Glu	Ile	Phe	Leu	Lys	Lys	Ala	Leu	Lys	His	Val	Leu	Ser	Asp	Leu
65					70					75				80	
Ser	Thr	Lys	Leu	Ser	Ser	Asn	Ala	Leu	Val	Phe	Arg	Ile	Cys	His	Ser
			85					90						95	
Ser	Val	Tyr	Ile	Trp	Pro	Ser	Ser	Asp	Ile	Asn	Thr	Ile	Pro	Gly	Glu

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115	120	125
Glu Pro Glu Glu Asp Ile Lys Arg Lys Phe Met Arg Lys Lys Asp Lys		
130	135	140
Lys Leu Ser Asp Met His Gln Ile Val Asn Ile Asp Leu Met Leu Glu		
145	150	155
Met Ser Thr Ser Leu Ala Ala Val Thr Pro Ile Ile Glu Arg Glu Ser		
165	170	175
Gly Gly His His Tyr Val Asn Met Thr Leu Pro Val Asp Ala Val Ile		
180	185	190
Ser Val Ala Pro Glu Glu Thr Trp Gly Lys Val Arg Lys Leu Leu Val		
195	200	205
Asp Ala Ile His Asn Gln Leu Thr Asp Met Glu Lys Cys Ile Leu Lys		
210	215	220
Tyr Met Lys Arg Thr Ser Ile Val Val Pro Glu Pro Leu His Phe Leu		
225	230	235
Leu Pro Gly Lys Lys Asn Leu Val Thr Ile Ser Tyr Pro Ser Gly Ile		
245	250	255
Pro Asp Gly Gln Leu Gln Ala Tyr Arg Lys Glu Leu His Asp Leu Phe		
260	265	270
Asn Leu Pro His Asp Arg Pro Tyr Phe Lys Arg Ser Asn Ala Tyr His		
275	280	285
Phe Pro Asp Glu Pro Tyr Lys Asp Gly Tyr Ile Arg Asn Pro His Thr		
290	295	300
Tyr Leu Asn Pro Pro Asn Met Glu Thr Gly Met Ile Tyr Val Val Gln		
305	310	315
Gly Ile Tyr Gly Tyr His His Tyr Met Gln Asp Arg Ile Asp Asp Asn		
325	330	335
Gly Trp Gly Cys Ala Tyr Arg Ser Leu Gln Thr Ile Cys Ser Trp Phe		
340	345	350
Lys His Gln Gly Tyr Thr Glu Arg Ser Ile Pro Thr His Arg Glu Ile		
355	360	365
Gln Gln Ala Leu Val Asp Ala Gly Asp Lys Pro Ala Thr Phe Val Gly		
370	375	380
Ser Arg Gln Trp Ile Gly Ser Ile Glu Val Gln Leu Val Leu Asn Gln		
385	390	395
Leu Ile Gly Ile Thr Ser Lys Ile Leu Phe Val Ser Gln Gly Ser Glu		
405	410	415
Ile Ala Ser Gln Gly Arg Glu Leu Ala Asn His Phe Gln Ser Glu Gly		
420	425	430
Thr Pro Val Met Ile Gly Gly Gly Val Leu Ala His Thr Ile Leu Gly		
435	440	445
Val Ala Trp Asn Glu Ile Thr Gly Gln Ile Lys Phe Leu Ile Leu Asp		
450	455	460
Pro His Tyr Thr Gly Ala Glu Asp Leu Gln Val Ile Leu Glu Lys Gly		
465	470	475
Trp Cys Gly Trp Lys Gly Pro Asp Phe Trp Asn Lys Asp Ala Tyr Tyr		
485	490	495
Asn Leu Cys Leu Pro Gln Arg Pro Asn Met Ile		
500	505	

&lt;210&gt; 5403

&lt;211&gt; 451

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5403

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180  
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300  
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360  
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420  
ccagccggaa gggggccagg cccgcaagct t  
451

&lt;210&gt; 5404

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5404

Ala Pro Ser Pro Ser Thr Ala Pro Ala Pro Arg Pro Leu Ala Pro Gly  
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Cys Ala Arg Pro His Ala Leu Val Arg Ala Ala Gly Ser Gly Ser Gly  
20 25 30  
Ser Pro Ala Leu Thr Met Ala Pro Ser Ser Leu Gly Ala Leu Gly Pro  
35 40 45  
Trp Val Gly Ala Leu Glu Leu Pro Arg Leu Gln Ala Pro Leu Ser Gln  
50 55 60  
Pro Gly Thr His Ala Gly Ala Xaa Asp Pro Arg Pro Ser Leu Arg Lys  
65 70 75 80  
Ala Ser Leu Arg Ala Ala Ser Pro Ala Ala Ser Ser Ser Pro Trp Ala  
85 90 95  
Arg Val Pro Cys Ser Arg Ala Arg Arg Pro Lys Ser Ala Glu Leu Leu  
100 105 110  
Arg Ile Pro Gly Thr Ser Thr Arg Pro Lys Lys Glu Arg Gly Cys Pro  
115 120 125  
Ser Pro Gly Leu Pro Ala Ala Gly Pro Gly Pro Ser Pro Ala Gly Arg  
130 135 140  
Gly Pro Gly Pro Gln Ala  
145 150

&lt;210&gt; 5405

&lt;211&gt; 1609

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5405

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420  
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1440  
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 <211> 291  
 <212> PRT  
 <213> Homo sapiens

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 Ala Gln Cys Leu Arg Asn Gly Gln Val Ile Glu Pro Asp Lys Asn Arg  
 35 40 45  
 Lys Tyr Cys Ser Ala Lys Ala Arg His Ser Trp Thr Lys Asp Arg Arg  
 50 55 60  
 Ala Met Arg Val Met Ser Ile Glu Arg Lys Lys Trp Met Asn Ile Arg  
 65 70 75 80  
 Pro Leu Pro Thr Lys Lys Gln Met Pro Leu Gln Phe Asp Leu Cys Asn  
 85 90 95  
 His Ile Ala Ser Gly Lys Lys Cys Gln Tyr Val Gly Asn Cys Ser Phe  
 100 105 110  
 Ala His Ser Pro Glu Glu Arg Glu Val Trp Thr Tyr Met Lys Glu Asn  
 115 120 125  
 Gly Ile Gln Asp Met Glu Gln Phe Tyr Glu Leu Trp Leu Lys Ser Gln  
 130 135 140  
 Lys Asn Glu Lys Ser Glu Asp Ile Ala Ser Gln Ser Asn Lys Glu Asn  
 145 150 155 160  
 Gly Lys Gln Ile His Met Pro Thr Asp Tyr Ala Glu Val Thr Val Asp  
 165 170 175  
 Phe His Cys Trp Met Cys Gly Lys Asn Cys Asn Ser Glu Lys Gln Trp  
 180 185 190  
 Gln Gly His Ile Ser Ser Glu Lys His Lys Glu Lys Val Phe His Thr  
 195 200 205  
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<211> 335

<212> PRT

<213> Homo sapiens

<400> 5408

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&lt;210&gt; 5410

&lt;211&gt; 198

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5410

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&lt;210&gt; 5412

&lt;211&gt; 642

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5412

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Asp Leu Cys Val Leu Phe Gly Lys Gly Asn Ser Pro Leu Leu Gln Lys
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Met Ile Gly Asn Ile Phe Thr Gln Gln Pro Ser Tyr Tyr Ser Asp Leu
 65           70           75           80
Asp Glu Thr Leu Pro Thr Ile Leu Gln Val Phe Ser Asn Ile Leu Gln
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His Cys Gly Leu Gln Gly Asp Gly Ala Asn Thr Thr Pro Gln Lys Leu
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Glu Glu Arg Gly Arg Leu Thr Pro Ser Asp Met Pro Leu Leu Glu Leu
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Lys Asp Ile Val Leu Tyr Leu Cys Asp Thr Cys Thr Thr Leu Trp Ala
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Phe Leu Asp Ile Phe Pro Leu Ala Cys Gln Thr Phe Gln Lys His Asp
145           150           155           160
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&lt;210&gt; 5414

&lt;211&gt; 426

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5414

Met Ser Ala Cys Asn Ile Ser Ile Gln Gly Pro Ser Ile Tyr Asn Lys  
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 Glu Pro Lys Asn Ile Ile Asn Pro His Glu Lys Val Gln Met Lys Ser

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      20      25      30
Ile Cys Ala Asn Ser Pro Ile Lys Ala Gln Gln Asp Gln Leu Gln Val
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Lys Asn Asn Ile Lys Ala Ser Leu His Asn Val Lys Ser Ser Leu Pro
      50      55      60
Leu Phe Asn Thr Lys Ser Ser Thr Ser Val Gly Gln Leu Gln Ser Pro
      65      70      75      80
Thr Leu Asn Ser Pro Ile Tyr Met Gln Lys Gln Gly Lys Asn Glu His
      85      90      95
Leu Ala Phe Asn Thr Lys Ser Lys Ala Ser Thr Val Gly Ser Glu Leu
      100      105      110
Val Leu Val Ser Thr Thr Val Pro Thr Val His His Val Ser Asp Leu
      115      120      125
Glu Met Ser Ser Thr Leu Asp Cys Leu Pro Val Leu Ala Asp Trp Glu
      130      135      140
Asp Val Val Leu Leu Pro Ala Ser Gln Pro Glu Glu Asn Val Asp Cys
      145      150      155      160
Thr Val Pro Ile Ser Asp Ser Asp Leu Glu Ile Ser Phe Asn Ser Gly
      165      170      175
Glu Arg Leu Met Val Leu Lys Glu Leu Glu Met Ser Ser His Glu Asn
      180      185      190
Phe Gly Asp Ile Glu Glu Thr Pro Gln Lys Ser Glu Thr Ser Lys Ser
      195      200      205
Ile Val Tyr Lys Ser Pro His Thr Thr Ile Tyr Asn Val Lys Glu Ala
      210      215      220
Lys Asp Pro Gly Ser Asp Ile Ser Ala Phe Lys Leu Pro Glu His Lys
      225      230      235      240
Ser Ser Thr Phe Asn Arg Val Asn Ala Asn Met Ser His Pro Leu Val
      245      250      255
Leu Gly Lys His Pro Leu Leu Ser Gly Gly Thr Lys Arg Asn Pro Cys
      260      265      270
Ser Pro Gln Ala Phe Pro Pro Ala Lys Lys Gln Pro Phe Thr Ile His
      275      280      285
Glu Glu Lys Pro Thr Ser Ser Asp Cys Ser Pro Val Arg Ser Ser Ser
      290      295      300
Trp Arg Arg Leu Pro Ser Ile Leu Thr Ser Thr Val Asn Leu Gln Glu
      305      310      315      320
Pro Trp Lys Ser Gly Lys Met Thr Pro Pro Leu Cys Lys Cys Gly Arg
      325      330      335
Arg Ser Lys Arg Leu Val Val Ser Asn Asn Gly Pro Asn His Gly Lys
      340      345      350
Val Phe Tyr Cys Cys Pro Ile Gly Lys Tyr Gln Glu Asn Arg Lys Cys
      355      360      365
Cys Gly Tyr Phe Lys Trp Glu Gln Thr Leu Gln Lys Glu Arg Ala Asn
      370      375      380
Ser Met Val Pro Ser His Ser Thr Gly Gly Leu Thr Phe Ser Ser Pro
      385      390      395      400
Glu Thr Ser His Ile Cys Asp Arg Asn Leu Ser Ile Ser Thr Lys Asn
      405      410      415
Ser Leu Arg Leu Arg Pro Ser Met Arg Asn
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&lt;210&gt; 5415

&lt;211&gt; 1493

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5415

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240  
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1493



<210> 5416  
 <211> 55  
 <212> PRT  
 <213> Homo sapiens

<400> 5416  
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 Gly Ala Cys Ser Ala Leu Ala Gln Ser Pro Ser Glu Lys Leu Asp Pro  
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 Ala Cys Leu Lys Pro Leu Ser  
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<210> 5417  
 <211> 2087  
 <212> DNA  
 <213> Homo sapiens

<400> 5417  
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 240  
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 1980  
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<210> 5418

<211> 528

<212> PRT

<213> Homo sapiens

<400> 5418

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 Asn Ile Leu Val Lys Glu Gln Thr Gln Leu Gly Val Lys Thr Leu Met  
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 Arg Leu Leu Lys Glu Pro Glu Lys Glu Arg Asp Ser Asp Ser Asp Phe  
 35 40 45  
 Ser Pro Leu Gln Gln Thr Glu Gly Cys Gln Arg Arg Asp Lys His Phe  
 50 55 60  
 Arg His Ala Glu Asn Pro His His Pro Leu Lys Thr Ser Ser Arg Ala

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65              70              75              80
Ala Pro Leu Glu Lys Pro Ile Val Leu Met Lys Pro Arg Glu Glu Gly
      85              90              95
Lys Gly Pro Val Ala Val Thr Gly Ala Ser Thr Pro Glu Gly Thr Ala
      100              105              110
Pro Pro Pro Pro Ala Ala Pro Ala Pro Pro Lys Gly Glu Lys Glu Gly
      115              120              125
Gln Arg Pro Thr Gln Pro Val Tyr Gln Ile Gln Asn Arg Gly Met Gly
      130              135              140
Thr Ala Ala Pro Ala Ala Met Asp Pro Val Val Gly Gln Ala Lys Leu
      145              150              155              160
Leu Pro Pro Glu Arg Met Lys His Ser Ile Lys Leu Val Asp Asp Gln
      165              170              175
Met Asn Trp Cys Asp Ser Ala Ile Glu Tyr Leu Leu Asp Gln Thr Asp
      180              185              190
Val Leu Val Val Gly Val Leu Gly Leu Gln Gly Thr Gly Lys Ser Met
      195              200              205
Val Met Ser Leu Leu Ser Ala Asn Thr Pro Glu Glu Asp Gln Arg Thr
      210              215              220
Tyr Val Phe Arg Ala Gln Ser Ala Glu Met Lys Glu Arg Gly Gly Asn
      225              230              235              240
Gln Thr Ser Gly Ile Asp Phe Phe Ile Thr Gln Glu Arg Ile Val Phe
      245              250              255
Leu Asp Thr Gln Pro Ile Leu Ser Pro Ser Ile Leu Asp His Leu Ile
      260              265              270
Asn Asn Asp Arg Lys Leu Pro Pro Glu Tyr Asn Leu Pro His Thr Tyr
      275              280              285
Val Glu Met Gln Ser Leu Gln Ile Ala Ala Phe Leu Phe Thr Val Cys
      290              295              300
His Val Val Ile Val Val Gln Asp Trp Phe Thr Asp Leu Ser Leu Tyr
      305              310              315              320
Arg Leu Trp Asp Leu Gly Cys Lys Cys Lys Ser Asn Ser His Ser Pro
      325              330              335
Gln Thr Pro Arg Phe Leu Gln Thr Ala Glu Met Val Lys Pro Ser Thr
      340              345              350
Pro Ser Pro Ser His Glu Ser Ser Ser Ser Gly Ser Asp Glu Gly
      355              360              365
Thr Glu Tyr Tyr Pro His Leu Val Phe Leu Gln Asn Lys Ala Arg Arg
      370              375              380
Glu Asp Phe Cys Pro Arg Lys Leu Arg Gln Met His Leu Met Ile Asp
      385              390              395              400
Gln Leu Met Ala His Ser His Leu Arg Tyr Lys Gly Thr Leu Ser Met
      405              410              415
Leu Gln Cys Asn Val Phe Pro Gly Leu Pro Pro Asp Phe Leu Asp Ser
      420              425              430
Glu Val Asn Leu Phe Leu Val Pro Phe Met Asp Ser Glu Ala Glu Ser
      435              440              445
Glu Asn Pro Pro Arg Ala Gly Pro Gly Ser Ser Pro Leu Phe Ser Leu
      450              455              460
Leu Pro Gly Tyr Arg Gly His Pro Ser Phe Gln Ser Leu Val Ser Lys
      465              470              475              480
Leu Arg Ser Gln Val Met Ser Met Ala Arg Pro Gln Leu Ser His Thr
      485              490              495
Ile Leu Thr Glu Lys Asn Trp Phe His Tyr Ala Ala Arg Ile Trp Asp

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 515 520 525

<210> 5419  
 <211> 989  
 <212> DNA  
 <213> Homo sapiens

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 120  
 taccgagaga ggcgctacgg gttcaccagg agatactacc ggtctccttc gcggtaccgg  
 180  
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 240  
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 300  
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 420  
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 480  
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 989

<210> 5420  
 <211> 174  
 <212> PRT  
 <213> Homo sapiens

<400> 5420  
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 35 40 45  
 Thr Arg Arg Tyr Tyr Arg Ser Pro Ser Arg Tyr Arg Ser Arg Ser Arg  
 50 55 60  
 Ser Arg Ser Arg Ser Arg Gly Arg Ser Tyr Cys Gly Arg Ala Tyr Ala  
 65 70 75 80  
 Ile Ala Arg Gly Gln Arg Tyr Tyr Gly Phe Gly Arg Thr Val Tyr Pro  
 85 90 95  
 Glu Glu His Ser Arg Trp Arg Asp Arg Ser Arg Thr Arg Ser Arg Ser  
 100 105 110  
 Arg Thr Pro Phe Arg Leu Ser Glu Lys Asp Arg Met Glu Leu Leu Glu  
 115 120 125  
 Ile Ala Lys Thr Asn Ala Ala Lys Ala Leu Gly Thr Thr Asn Ile Asp  
 130 135 140  
 Leu Pro Ala Ser Leu Arg Thr Val Pro Ser Ala Lys Glu Thr Ser Arg  
 145 150 155 160  
 Gly Ile Gly Val Ser Ser Asn Gly Ala Lys Pro Glu Lys Ser  
 165 170

&lt;210&gt; 5421

&lt;211&gt; 1239

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5421

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 120  
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 840

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<210> 5422

<211> 276

<212> PRT

<213> Homo sapiens

<400> 5422

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			20					25				30		Leu
Thr	Gln	Pro	Leu	Gly	Leu	Leu	Arg	Leu	Leu	Gln	Leu	Val	Ser	Thr
			35				40					45		Cys
Val	Ala	Phe	Ser	Leu	Val	Ala	Ser	Val	Gly	Ala	Trp	Thr	Gly	Ser
			50				55				60			Met
Gly	Asn	Trp	Ser	Met	Phe	Thr	Trp	Cys	Phe	Cys	Phe	Ser	Val	Thr
65					70				75				80	
Ile	Ile	Leu	Ile	Val	Glu	Leu	Cys	Gly	Leu	Gln	Ala	Arg	Phe	Pro
					85				90				95	
Ser	Trp	Arg	Asn	Phe	Pro	Ile	Thr	Phe	Ala	Cys	Tyr	Ala	Ala	Leu
			100					105					110	Phe
Cys	Leu	Ser	Ala	Ser	Ile	Ile	Tyr	Pro	Thr	Thr	Tyr	Val	Gln	Phe
			115				120					125		Leu
Ser	His	Gly	Arg	Ser	Arg	Asp	His	Ala	Ile	Ala	Ala	Thr	Phe	Phe
			130				135				140			Ser
Cys	Ile	Ala	Cys	Val	Ala	Tyr	Ala	Thr	Glu	Val	Ala	Trp	Thr	Arg
145					150				155					160
Arg	Pro	Gly	Glu	Ile	Thr	Gly	Tyr	Met	Ala	Thr	Val	Pro	Gly	Leu
					165				170					175
Lys	Val	Leu	Glu	Thr	Phe	Val	Ala	Cys	Ile	Ile	Phe	Ala	Phe	Ile
					180				185				190	Ser
Asp	Pro	Asn	Leu	Tyr	Gln	His	Gln	Pro	Ala	Leu	Glu	Trp	Cys	Val
			195				200					205		Ala
Val	Tyr	Ala	Ile	Cys	Phe	Ile	Leu	Ala	Ala	Ile	Ala	Ile	Leu	Leu
			210				215				220			Asn
Leu	Gly	Glu	Cys	Thr	Asn	Val	Leu	Pro	Ile	Pro	Phe	Pro	Ser	Phe
225					230					235				240
Ser	Gly	Leu	Ala	Leu	Cys	Leu	Ser	Ser	Ser	Met	Pro	Pro	Pro	Leu
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Ser	Gly	Pro	Ser	Thr	Ser	Ser	Met	Arg	Ser	Met	Ala	Ala	Ser	Leu
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275

265

270

<210> 5423  
<211> 2427  
<212> DNA  
<213> Homo sapiens

<400> 5423  
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240  
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420  
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<210> 5424

<211> 570

<212> PRT

<213> Homo sapiens

<400> 5424

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Leu	Leu	Thr	Met	Ser	Asn	Asn	Asn	Pro	Glu	Leu	Phe	Ser	Pro	Pro	Gln
			20					25				30			
Lys	Tyr	Gln	Leu	Leu	Val	Tyr	His	Ala	Asp	Ser	Leu	Phe	His	Asp	Lys
		35				40					45				
Glu	Tyr	Arg	Asn	Ala	Val	Ser	Lys	Tyr	Thr	Met	Ala	Leu	Gln	Gln	Lys
	50					55				60					
Lys	Ala	Leu	Ser	Lys	Thr	Ser	Lys	Val	Arg	Pro	Ser	Thr	Gly	Asn	Ser



```

65          70          75          80
Ala Ser Thr Pro Gln Ser Gln Cys Leu Pro Ser Glu Ile Glu Val Lys
      85          90          95
Tyr Lys Met Ala Glu Cys Tyr Thr Met Leu Lys Gln Asp Lys Asp Ala
      100         105         110
Ile Ala Ile Leu Asp Gly Ile Pro Ser Arg Gln Arg Thr Pro Lys Ile
      115         120         125
Asn Met Met Leu Ala Asn Leu Tyr Lys Lys Ala Gly Gln Glu Arg Pro
      130         135         140
Ser Val Thr Ser Tyr Lys Glu Val Leu Arg Gln Cys Pro Leu Ala Leu
      145         150         155         160
Asp Ala Ile Leu Gly Leu Leu Ser Leu Ser Val Lys Gly Ala Glu Val
      165         170         175
Ala Ser Met Thr Met Asn Val Ile Gln Thr Val Pro Asn Leu Asp Trp
      180         185         190
Leu Ser Val Trp Ile Lys Ala Tyr Ala Phe Val His Thr Gly Asp Asn
      195         200         205
Ser Arg Ala Ile Ser Thr Ile Cys Ser Leu Glu Lys Lys Ser Leu Leu
      210         215         220
Arg Asp Asn Val Asp Leu Leu Gly Ser Leu Ala Asp Leu Tyr Phe Arg
      225         230         235         240
Ala Gly Asp Asn Lys Asn Ser Val Leu Lys Phe Glu Gln Ala Gln Met
      245         250         255
Leu Asp Pro Tyr Leu Ile Lys Gly Met Asp Val Tyr Gly Tyr Leu Leu
      260         265         270
Ala Arg Glu Gly Arg Leu Glu Asp Val Glu Asn Leu Gly Cys Arg Leu
      275         280         285
Phe Asn Ile Ser Asp Gln His Ala Glu Pro Trp Val Val Ser Gly Cys
      290         295         300
His Ser Phe Tyr Ser Lys Arg Tyr Ser Arg Ala Leu Tyr Leu Gly Ala
      305         310         315         320
Lys Ala Ile Gln Leu Asn Ser Asn Ser Val Gln Ala Leu Leu Lys
      325         330         335
Gly Ala Ala Leu Arg Asn Met Gly Arg Val Gln Glu Ala Ile Ile His
      340         345         350
Phe Arg Glu Ala Ile Arg Leu Ala Pro Cys Arg Leu Asp Cys Tyr Glu
      355         360         365
Gly Leu Ile Glu Cys Tyr Leu Ala Ser Asn Ser Ile Arg Glu Ala Met
      370         375         380
Val Met Ala Asn Asn Val Tyr Lys Thr Leu Gly Ala Asn Ala Gln Thr
      385         390         395         400
Leu Thr Leu Leu Ala Thr Val Cys Leu Glu Asp Pro Val Thr Gln Glu
      405         410         415
Lys Ala Lys Thr Leu Leu Asp Lys Ala Leu Thr Gln Arg Pro Asp Tyr
      420         425         430
Ile Lys Ala Val Val Lys Lys Ala Glu Leu Leu Ser Arg Glu Gln Lys
      435         440         445
Tyr Glu Asp Gly Ile Ala Leu Leu Arg Asn Ala Leu Ala Asn Gln Ser
      450         455         460
Asp Cys Val Leu His Arg Ile Leu Gly Asp Phe Leu Val Ala Val Asn
      465         470         475         480
Glu Tyr Gln Glu Ala Met Asp Gln Tyr Ser Ile Ala Leu Ser Leu Asp
      485         490         495
Pro Asn Asp Gln Lys Ser Leu Glu Gly Met Gln Lys Met Glu Lys Glu

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	500		505		510
Glu Ser Pro Thr Asp Ala Thr Gln Glu Glu Asp Val Asp Asp Met Glu					
515		520		525	
Gly Ser Gly Glu Glu Gly Asp Leu Glu Gly Ser Asp Ser Glu Ala Ala					
530		535		540	
Gln Trp Ala Asp Gln Glu Gln Trp Phe Gly Met Ser Glu Gly Ala Ala					
545		550		555	560
Ala Pro Trp Pro Gln Trp Pro Ala Leu Leu					
	565		570		

&lt;210&gt; 5425

&lt;211&gt; 639

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5425

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 120  
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 180  
 ccacagagga tcggagctgg tggcggggca agcagggtt ccaggctggg ttcttcccca  
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 300  
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 420  
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 480  
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 540  
 gccnaccggg tgggtgatgg gatctaccgg ctctcaggcg tgtcttccaa catccagagg  
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 639

&lt;210&gt; 5426

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5426

Pro	Gln	Leu	Cys	His	Gly	Leu	Val	Gly	Ser	Trp	Pro	Ala	Cys	Ser	Ala
1				5					10					15	
Pro	Ser	Cys	Ala	Pro	Ala	Leu	Leu	Gly	Ser	Gly	Cys	Gly	Ser	Gly	Glu
			20					25						30	
Ser	Cys	Asp	Arg	Gly	Cys	Leu	Ala	Ala	Ile	Leu	Ala	Ser	Thr	Ser	Ala
		35				40					45				
Thr	Gln	Ala	Arg	Met	Cys	Pro	Val	Leu	Arg	Cys	Cys	Ser	Glu	Phe	Ile
	50				55				60						
Glu	Ala	Xaa	Gly	Val	Val	Asp	Gly	Ile	Tyr	Arg	Leu	Ser	Gly	Val	Ser

65                      70                      75                      80  
Ser Asn Ile Gln Arg Leu Arg His Glu Phe Asp Ser Glu Arg Ile Pro  
                      85                      90                      95  
Glu Leu

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<210> 5427
<211> 366
<212> DNA
<213> Homo sapiens
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<400> 5427
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120
tgaggataca tcagaggggca aaatgggatac agatactctg aaaaaacgtg cattctagct
180
gggtattgggt cctccacact gtgtccaaaa ggtatgtttg gggttgctgaa gtagataaac
240
tggtattggc agcaggaaca gcatttatgg aacagagggg aagacacatt caaggaatga
300
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360
gttgaa
366

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<210> 5428
<211> 101
<212> PRT
<213> Homo sapiens
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[illegible]

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<210> 5429
<211> 612
<212> DNA
<213> Homo sapiens
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<400> 5429

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 120  
 gcgctgagct gggggaggcc ccgggctccc gcccagcct cgaagccccg cccaggtctg  
 180  
 gatttgaatt gcttgtggtt ccgcccacag cccattttcc tctggaaget gagaccccg  
 240  
 cccgtgccag ctgccacgcc cctgacaggt cctctgccac tctaagtcca ggccccgcc  
 300  
 accgcacaat gccagctctg ccactctaa ggtccccccc atttccactc cttgggggcg  
 360  
 gcacctccc cttggctctg tgggcccgtt ctccagcaga aaaccacgcc caccaagcag  
 420  
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 480  
 ctcatatccc ctacccctg gccagggatc cctctaacc accgtgtccc gactgtgtac  
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<210> 5430

<211> 94

<212> PRT

<213> Homo sapiens

<400> 5430

Pro	Ala	Gly	Gly	Lys	Ala	Pro	Gly	Gln	His	Gly	Gly	Phe	Val	Val	Thr
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Val	Lys	Gln	Glu	Arg	Gly	Glu	Gly	Pro	Arg	Ala	Gly	Glu	Lys	Gly	Ser
			20					25					30		
His	Glu	Glu	Glu	Val	Arg	Val	Pro	Ala	Leu	Ser	Trp	Gly	Arg	Pro	Arg
			35				40					45			
Ala	Pro	Ala	Pro	Ala	Ser	Lys	Pro	Arg	Pro	Arg	Leu	Asp	Leu	Asn	Cys
			50			55					60				
Leu	Trp	Leu	Arg	Pro	Gln	Pro	Ile	Phe	Leu	Trp	Lys	Leu	Arg	Pro	Arg
65					70					75				80	
Pro	Val	Pro	Ala	Ala	Thr	Pro	Leu	Thr	Gly	Pro	Leu	Pro	Leu		
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<210> 5431

<211> 3005

<212> DNA

<213> Homo sapiens

<400> 5431

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 120  
 gccattgtct gggcacccaa cctgctacgg tccatggagc tggagtcagt gggaatgggt  
 180

ggcgcggcgg cgtcccgga agttcgggtg cagtcggtgg tggaggagt tctgctcacc  
240  
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300  
tgctgtctcc ccaggcccaa gtcccttgcg ggcagctgcc cctccaccgc cctgctgacg  
360  
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420  
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480  
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<210> 5432  
 <211> 863  
 <212> PRT  
 <213> Homo sapiens

<400> 5432  
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 20 25 30  
 Thr Ser Met His Ala Arg Asn Leu Ala Ile Val Trp Ala Pro Asn Leu

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Leu Arg Ser Met Glu Leu Glu Ser Val Gly Met Gly Gly Ala Ala Ala
 50          55          60
Phe Arg Glu Val Arg Val Gln Ser Val Val Val Glu Phe Leu Leu Thr
 65          70          75          80
His Val Asp Val Leu Phe Ser Asp Thr Phe Thr Ser Ala Gly Leu Asp
      85          90          95
Pro Ala Gly Arg Cys Leu Leu Pro Arg Pro Lys Ser Leu Ala Gly Ser
      100          105          110
Cys Pro Ser Thr Arg Leu Leu Thr Leu Glu Glu Ala Gln Ala Arg Thr
      115          120          125
Gln Gly Arg Leu Gly Thr Pro Thr Glu Pro Thr Thr Pro Lys Ala Pro
      130          135          140
Ala Ser Pro Ala Glu Arg Arg Lys Gly Glu Arg Gly Glu Lys Gln Arg
      145          150          155          160
Lys Pro Gly Gly Ser Ser Trp Lys Thr Phe Phe Ala Leu Gly Arg Gly
      165          170          175
Pro Ser Val Pro Arg Lys Lys Pro Leu Pro Trp Leu Gly Gly Thr Arg
      180          185          190
Ala Pro Pro Gln Pro Ser Gly Ser Arg Pro Asp Thr Val Thr Leu Arg
      195          200          205
Ser Ala Lys Ser Glu Glu Ser Leu Ser Ser Gln Ala Ser Gly Ala Gly
      210          215          220
Leu Gln Arg Leu His Arg Leu Arg Arg Pro His Ser Ser Ser Asp Ala
      225          230          235          240
Phe Pro Val Gly Pro Ala Pro Ala Gly Ser Cys Glu Ser Leu Ser Ser
      245          250          255
Ser Ser Ser Ser Glu Ser Ser Ser Ser Glu Ser Ser Ser Ser Ser
      260          265          270
Glu Ser Ser Ala Ala Gly Leu Gly Ala Leu Ser Gly Ser Pro Ser His
      275          280          285
Arg Thr Ser Ala Trp Leu Asp Asp Gly Asp Glu Leu Asp Phe Ser Pro
      290          295          300
Pro Arg Cys Leu Glu Gly Leu Arg Gly Leu Asp Phe Asp Pro Leu Thr
      305          310          315          320
Phe Arg Cys Ser Ser Pro Thr Pro Gly Asp Pro Ala Pro Pro Ala Ser
      325          330          335
Pro Ala Pro Pro Ala Pro Ala Ser Ala Phe Pro Pro Arg Val Thr Pro
      340          345          350
Gln Ala Ile Ser Pro Arg Gly Pro Thr Ser Pro Ala Ser Pro Ala Ala
      355          360          365
Leu Asp Ile Ser Glu Pro Leu Ala Val Ser Val Pro Pro Ala Val Leu
      370          375          380
Glu Leu Leu Gly Ala Gly Gly Ala Pro Ala Ser Ala Thr Pro Thr Pro
      385          390          395          400
Ala Leu Ser Pro Gly Arg Ser Leu Arg Pro His Leu Ile Pro Leu Leu
      405          410          415
Leu Arg Gly Ala Glu Ala Pro Leu Thr Asp Ala Cys Gln Gln Glu Met
      420          425          430
Cys Ser Lys Leu Arg Gly Ala Gln Gly Pro Leu Gly Pro Asp Met Glu
      435          440          445
Ser Pro Leu Pro Pro Pro Pro Leu Ser Leu Leu Arg Pro Gly Gly Ala
      450          455          460
Pro Pro Pro Pro Pro Lys Asn Pro Ala Arg Leu Met Ala Leu Ala Leu

```

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465          470          475          480
Ala Glu Arg Ala Gln Gln Val Ala Glu Gln Gln Ser Gln Gln Glu Cys
          485          490          495
Gly Gly Thr Pro Pro Ala Ser Gln Ser Pro Phe His Arg Ser Leu Ser
          500          505          510
Leu Glu Val Gly Gly Glu Pro Leu Gly Thr Ser Gly Ser Gly Pro Pro
          515          520          525
Pro Asn Ser Leu Ala His Pro Gly Ala Trp Val Pro Gly Pro Pro Pro
          530          535          540
Tyr Leu Pro Arg Gln Gln Ser Asp Gly Ser Leu Leu Arg Ser Gln Arg
          545          550          555          560
Pro Met Gly Thr Ser Arg Arg Gly Leu Arg Gly Pro Ala Gln Val Ser
          565          570          575
Ala Gln Leu Arg Ala Gly Gly Gly Gly Arg Asp Ala Pro Glu Ala Ala
          580          585          590
Ala Gln Ser Pro Cys Ser Val Pro Ser Gln Val Pro Thr Pro Gly Phe
          595          600          605
Phe Ser Pro Ala Pro Arg Glu Cys Leu Pro Pro Phe Leu Gly Val Pro
          610          615          620
Lys Pro Gly Leu Tyr Pro Leu Gly Pro Pro Ser Phe Gln Pro Ser Ser
          625          630          635          640
Pro Ala Pro Val Trp Arg Ser Ser Leu Gly Pro Pro Ala Pro Leu Asp
          645          650          655
Arg Gly Glu Asn Leu Tyr Tyr Glu Ile Gly Ala Ser Glu Gly Ser Pro
          660          665          670
Tyr Ser Gly Pro Thr Arg Ser Trp Ser Pro Phe Arg Ser Met Pro Pro
          675          680          685
Asp Arg Leu Asn Ala Ser Tyr Gly Met Leu Gly Gln Ser Pro Pro Leu
          690          695          700
His Arg Ser Pro Asp Phe Leu Leu Ser Tyr Pro Pro Ala Pro Ser Cys
          705          710          715          720
Phe Pro Pro Asp His Leu Gly Tyr Ser Ala Pro Gln His Pro Ala Arg
          725          730          735
Arg Pro Thr Pro Pro Glu Pro Leu Tyr Val Asn Leu Ala Leu Gly Pro
          740          745          750
Arg Gly Pro Ser Pro Ala Ser Ser Ser Ser Ser Pro Pro Ala His
          755          760          765
Pro Arg Ser Arg Ser Asp Pro Gly Pro Pro Val Pro Arg Leu Pro Gln
          770          775          780
Lys Gln Arg Ala Pro Trp Gly Pro Arg Thr Pro His Arg Val Pro Gly
          785          790          795          800
Pro Trp Gly Pro Pro Glu Pro Leu Leu Leu Tyr Arg Ala Ala Pro Pro
          805          810          815
Ala Tyr Gly Arg Gly Gly Glu Leu His Arg Gly Ser Leu Tyr Arg Asn
          820          825          830
Gly Gly Gln Arg Gly Glu Gly Ala Gly Pro Pro Pro Pro Tyr Pro Thr
          835          840          845
Pro Ser Trp Ser Leu His Ser Glu Gly Gln Thr Arg Ser Tyr Cys
          850          855          860

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&lt;210&gt; 5433

&lt;211&gt; 385

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



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 ctgggtataa gaagctcctc tggctccag agttctcgga gtaaccctc catccaagcc  
 180  
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 300  
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 <211> 128  
 <212> PRT  
 <213> Homo sapiens

<400> 5434  
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 Asn Ile Pro Ala Ala Met Thr His Leu Gly Ile Arg Ser Ser Ser Gly  
 35 40 45  
 Leu Gln Ser Ser Arg Ser Asn Pro Ser Ile Gln Ala Thr Leu Asn Lys  
 50 55 60  
 Thr Val Leu Ser Ser Ser Leu Asn Asn His Pro Gln Thr Ser Val Pro  
 65 70 75 80  
 Asn Ala Ser Ala Leu His Pro Ser Leu Arg Leu Phe Ser Leu Ser Asn  
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 Pro Ser Leu Ser Thr Thr Asn Leu Ser Gly Pro Ser Arg Arg Arg Gln  
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<210> 5435  
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 <213> Homo sapiens

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 240

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<211> 119

<212> PRT

<213> Homo sapiens

<400> 5436

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		20					25						30		
Gly	Thr	Ile	Arg	Ala	Asn	Leu	Tyr	Phe	Lys	Ile	Leu	Gln	Pro	Lys	Met
		35				40						45			
Lys	Asn	Asn	His	Ile	Arg	Ser	Cys	Arg	Ala	Val	Leu	His	Arg	Ser	Asp
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Leu	Leu	Val	Arg	Lys	Leu	Leu	Ala	Leu	Cys	Lys	Glu	Lys	Glu	Asp	Cys
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Asn	Arg	Asn	His	Glu	Pro	Gly	Arg	Glu	Met	Gly	Leu	Glu	Lys	Gly	Glu
			85					90						95	
Glu	Asn	Trp	Met	Ser	Asp	Ile	Ser	Glu	Thr	Gln	Asp	Pro	Phe	Leu	Gln
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<210> 5437

<211> 1422

<212> DNA

<213> Homo sapiens

<400> 5437

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&lt;210&gt; 5438

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5438

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 Leu Gln Val Val Arg Glu Gly Lys Phe Ser Gly Phe Leu Thr Ser Cys  
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 Ser Leu Leu Leu Pro Arg Ala Ala Gln Ile Leu Ala Ala Glu Ala Gly  
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      100          105          110
Pro Trp Cys Lys Lys Ser Leu Val Val Ser Ser Arg Lys Gly His Leu
      115          120          125
Lys Ala Gln Leu Glu Val Gly Phe Pro Pro Val Met Glu Arg Tyr Thr
      130          135          140
Ser Ala Val Ser Met Val Lys Pro His Met Val Lys Ala Val Cys Thr
      145          150          155          160
Asp Gly Lys Leu Phe Asn His Leu Glu Thr Ile Trp Arg Phe Ser Pro
      165          170          175
Gly Ile Pro Ala Tyr Pro Arg Thr Cys Thr Val Asp Phe Ser Ile Ser
      180          185          190
Phe Glu Phe Arg Ser Leu Leu His Ser Gln Leu Ala Thr Met Phe Phe
      195          200          205
Asp Glu Val Val Lys Gln Asn Val Ala Ala Phe Glu Arg Arg Ala Ala
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<210> 5439  
 <211> 4234  
 <212> DNA  
 <213> Homo sapiens

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720

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<210> 5440

<211> 461

<212> PRT

<213> Homo sapiens

<400> 5440

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Gln	Arg	Met	Leu	Asn	Arg	Arg	Pro	Glu	Ile	Val	Val	Ala	Thr	Pro	Gly
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Arg	Leu	Trp	Glu	Leu	Ile	Lys	Glu	Lys	His	Tyr	His	Leu	Arg	Asn	Leu
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Arg	Gln	Leu	Arg	Cys	Leu	Val	Val	Asp	Glu	Ala	Asp	Arg	Met	Val	Glu
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Lys	Gly	His	Phe	Ala	Glu	Leu	Ser	Gln	Leu	Leu	Glu	Met	Leu	Asn	Asp
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Ser	Gln	Tyr	Asn	Pro	Lys	Arg	Gln	Thr	Leu	Val	Phe	Ser	Ala	Thr	Leu
			100					105					110		
Thr	Leu	Val	His	Gln	Ala	Pro	Ala	Arg	Ile	Leu	His	Lys	Lys	His	Thr
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Lys	Lys	Met	Asp	Lys	Thr	Ala	Lys	Leu	Asp	Leu	Leu	Met	Gln	Lys	Ile
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Gly	Met	Arg	Gly	Lys	Pro	Lys	Val	Ile	Asp	Leu	Thr	Arg	Asn	Glu	Ala
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Thr	Val	Glu	Thr	Leu	Thr	Glu	Thr	Lys	Ile	His	Cys	Glu	Thr	Asp	Glu
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Lys	Asp	Phe	Tyr	Leu	Tyr	Tyr	Phe	Leu	Met	Gln	Tyr	Pro	Gly	Arg	Ser
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Leu	Val	Phe	Ala	Asn	Ser	Ile	Ser	Cys	Ile	Lys	Arg	Leu	Ser	Gly	Leu
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Gln	Lys	Gln	Arg	Leu	Arg	Asn	Leu	Glu	Gln	Phe	Ala	Arg	Leu	Glu	Asp
225				230						235				240	
Cys	Val	Leu	Leu	Ala	Thr	Asp	Val	Ala	Ala	Arg	Gly	Leu	Asp	Ile	Pro
		245						250					255		
Lys	Val	Gln	His	Val	Ile	His	Tyr	Gln	Val	Pro	Arg	Thr	Ser	Glu	Ile
		260					265					270			
Tyr	Val	His	Arg	Ser	Gly	Arg	Thr	Ala	Arg	Ala	Thr	Asn	Glu	Gly	Leu
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Ser	Leu	Met	Leu	Ile	Gly	Pro	Glu	Asp	Val	Ile	Asn	Phe	Lys	Lys	Ile

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305              310              315              320
Thr Lys Tyr Met Asp Val Val Lys Glu Arg Ile Arg Leu Ala Arg Gln
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Ile Glu Lys Ser Glu Tyr Arg Asn Phe Gln Ala Cys Leu His Asn Ser
      340              345              350
Trp Ile Glu Gln Ala Ala Ala Ala Leu Glu Ile Glu Leu Glu Glu Asp
      355              360              365
Met Tyr Lys Gly Gly Lys Ala Asp Gln Gln Glu Glu Arg Arg Arg Gln
      370              375              380
Lys Gln Met Lys Val Leu Lys Lys Glu Leu Arg His Leu Leu Ser Gln
      385              390              395              400
Pro Leu Phe Thr Glu Ser Gln Lys Thr Lys Tyr Pro Thr Gln Ser Gly
      405              410              415
Lys Pro Pro Leu Leu Val Ser Ala Pro Ser Lys Ser Glu Ser Ala Leu
      420              425              430
Ser Cys Leu Ser Lys Gln Lys Lys Lys Lys Thr Lys Lys Pro Lys Glu
      435              440              445
Pro Gln Pro Glu Gln Pro Gln Pro Ser Thr Ser Ala Asn
      450              455              460

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&lt;210&gt; 5441

&lt;211&gt; 1635

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5441

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780

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&lt;210&gt; 5442

&lt;211&gt; 250

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5442

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		20						25					30		
Lys	Asn	Lys	Val	Val	Gly	Trp	Arg	Ser	Gly	Val	Glu	Lys	Asp	Leu	Asp
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Glu	Val	Leu	Gln	Thr	His	Ser	Val	Phe	Val	Asn	Val	Ser	Lys	Gly	Gln
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Val	Ala	Lys	Lys	Glu	Asp	Leu	Ile	Ser	Ala	Phe	Gly	Thr	Asp	Asp	Gln
65				70					75					80	
Thr	Glu	Ile	Cys	Lys	Gln	Ile	Leu	Thr	Lys	Gly	Glu	Val	Gln	Val	Ser
			85					90					95		
Asp	Lys	Glu	Arg	His	Thr	Gln	Leu	Glu	Gln	Met	Phe	Arg	Asp	Ile	Ala
		100						105					110		
Thr	Ile	Val	Ala	Asp	Lys	Cys	Val	Asn	Pro	Glu	Thr	Lys	Arg	Pro	Tyr
		115					120					125			
Thr	Val	Ile	Leu	Ile	Glu	Arg	Ala	Met	Lys	Asp	Ile	His	Tyr	Ser	Val

130		135		140
Lys Thr Asn Lys Ser Thr	Lys Gln Gln Ala Leu	Glu Val Ile Lys Gln		
145	150	155	160	
Leu Lys Glu Lys Met Lys	Ile Glu Arg Ala His	Met Arg Leu Arg Phe		
	165	170	175	
Ile Leu Pro Val Asn Glu	Gly Lys Lys Leu Lys	Glu Lys Leu Lys Pro		
	180	185	190	
Leu Ile Lys Val Ile Glu	Ser Glu Asp Tyr Gly	Gln Gln Leu Glu Ile		
	195	200	205	
Val Cys Leu Ile Asp Pro	Gly Cys Phe Arg Glu	Ile Asp Glu Leu Ile		
	210	215	220	
Lys Lys Glu Thr Lys Gly	Lys Gly Ser Leu Glu	Val Leu Asn Leu Lys		
225	230	235	240	
Asp Val Glu Glu Gly Asp	Glu Lys Phe Glu			
	245	250		

&lt;210&gt; 5443

&lt;211&gt; 2021

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5443

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 240  
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 420  
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 480  
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 540  
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 600  
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 960

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 1860  
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 1920  
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 1980  
 aataaacagc cttgtataga gaaaaaaaa aaaaaaaaa a  
 2021

&lt;210&gt; 5444

&lt;211&gt; 438

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5444

Leu Glu Glu Val Pro Leu Glu Val Leu Arg Gln Arg Glu Ser Lys Trp  
 1 5 10 15  
 Leu Asp Met Leu Asn Asn Trp Asp Lys Trp Met Ala Lys Lys His Lys  
 20 25 30  
 Lys Ile Arg Leu Arg Cys Gln Lys Gly Ile Pro Pro Ser Leu Arg Gly  
 35 40 45  
 Arg Ala Trp Gln Tyr Leu Ser Gly Gly Lys Val Lys Leu Gln Gln Asn  
 50 55 60  
 Pro Gly Lys Phe Asp Glu Leu Asp Met Ser Pro Gly Asp Pro Lys Trp  
 65 70 75 80  
 Leu Asp Val Ile Glu Arg Asp Leu His Arg Gln Phe Pro Phe His Glu

```

      85      90      95
Met Phe Val Ser Arg Gly Gly His Gly Gln Gln Asp Leu Phe Arg Val
      100      105      110
Leu Lys Ala Tyr Thr Leu Tyr Arg Pro Glu Glu Gly Tyr Cys Gln Ala
      115      120      125
Gln Ala Pro Ile Ala Ala Val Leu Leu Met His Met Pro Ala Glu Gln
      130      135      140
Ala Phe Trp Cys Leu Val Gln Ile Cys Glu Lys Tyr Leu Pro Gly Tyr
      145      150      155      160
Tyr Ser Glu Lys Leu Glu Ala Ile Gln Leu Asp Gly Glu Ile Leu Phe
      165      170      175
Ser Leu Leu Gln Lys Val Ser Pro Val Ala His Lys His Leu Ser Arg
      180      185      190
Gln Lys Ile Asp Pro Leu Leu Tyr Met Thr Glu Trp Phe Met Cys Ala
      195      200      205
Phe Ser Arg Thr Leu Pro Trp Ser Ser Val Leu Arg Val Trp Asp Met
      210      215      220
Phe Phe Cys Glu Gly Val Lys Ile Ile Phe Arg Val Gly Leu Val Leu
      225      230      235      240
Leu Lys His Ala Leu Gly Ser Pro Glu Lys Val Lys Ala Cys Gln Gly
      245      250      255
Gln Tyr Glu Thr Ile Glu Arg Leu Arg Ser Leu Ser Pro Lys Ile Met
      260      265      270
Gln Glu Ala Phe Leu Val Gln Glu Val Val Glu Leu Pro Val Thr Glu
      275      280      285
Arg Gln Ile Glu Arg Glu His Leu Ile Gln Leu Arg Arg Trp Gln Glu
      290      295      300
Thr Arg Gly Glu Leu Gln Cys Arg Ser Pro Pro Arg Leu His Gly Ala
      305      310      315      320
Lys Ala Ile Leu Asp Ala Glu Pro Gly Pro Arg Pro Ala Leu Gln Pro
      325      330      335
Ser Pro Ser Ile Arg Leu Pro Leu Asp Ala Pro Leu Pro Gly Ser Lys
      340      345      350
Ala Lys Pro Lys Pro Pro Lys Gln Ala Gln Lys Glu Gln Arg Lys Gln
      355      360      365
Met Lys Gly Arg Gly Gln Leu Glu Lys Pro Pro Ala Pro Asn Gln Ala
      370      375      380
Met Val Val Ala Ala Ala Gly Asp Ala Cys Pro Pro Gln His Val Pro
      385      390      395      400
Pro Lys Asp Ser Ala Pro Lys Asp Ser Ala Pro Gln Asp Leu Ala Pro
      405      410      415
Gln Val Ser Ala His His Arg Ser Gln Glu Ser Leu Thr Ser Gln Glu
      420      425      430
Ser Glu Asp Thr Tyr Leu
      435

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&lt;210&gt; 5445

&lt;211&gt; 1187

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5445

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agaaaaggcg ggggtcggac tgacgccgtc ctgggccatg tccacgtctg gggctctgcag  
 120  
 gttccatctc cctttccact gtgcctaacc ttacatctat tacctacatc cagcaagaca  
 180  
 cgattttcca cgatgagttg attcgtaatt ccatttatgt gctagttttt agaattttcc  
 240  
 tgtgggtttt tttttactta cttatgattt taattttgtt tgctttaaaa aaaacacatg  
 300  
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 aaaaattcat tgaggggggg gctcgcgttg tacaagaaa atcagaccca ccgggatggc  
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 540  
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 780  
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 840  
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 900  
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 960  
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 1020  
 gcaattgttg cacaactctg caaatatact aaaaaccact gaattgtaca tttcaaaatg  
 1080  
 ggtgaattgt acgggtgctt tattatacct caataaagct atttttaag aaacaaaatt  
 1140  
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 1187

&lt;210&gt; 5446

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5446

Met Ala Val Ile Lys Glu Thr Val Thr Arg Val Gly Arg Trp Arg Cys  
 1 5 10 15  
 Glu Ser Lys His Thr Thr Cys Ala Lys Val Lys Trp Pro Gln Pro Pro  
 20 25 30  
 Arg Lys Thr Gly Trp Arg Phe Leu Arg Arg Ser Thr His Ser Arg His  
 35 40 45  
 Gly Thr Gln Trp Phe His Pro Gln Val Cys Ser Asn Arg His His Ser  
 50 55 60  
 Pro Arg Pro His Ala Asp Ser Asp Thr Arg Ala His Ser Pro Arg Ser

65                                70                                75                                80  
 His Ala Asp Ser Asp Met Arg Ala His Ser Leu Ser His Asp Ser Gln  
                                  85                                90                                95  
 Thr Val Glu Thr Arg Gln Val Gly Leu Gly Cys  
                                  100                                105

<210> 5447  
 <211> 1444  
 <212> DNA  
 <213> Homo sapiens

<400> 5447  
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 aatttgctgc tttgtgaaag tgggcttcaa cacatacgtg atatcctcca atgaggaatc  
 120  
 gatgatctca tagttgtact ttgcagtaag aagacttttc agatcaccaa acaaggagat  
 180  
 ggcgttgact ttctgtcttg gtttctgaat gctctgcact cagctctggg gggcacaag  
 240  
 aagaaaaaga agactattgt gactgatgtt ttccaggggt ccatgaggat cttcactaaa  
 300  
 aagcttcccc atcctgatct gccagcagaa gaaaaagagc agttgctcca taatgacgag  
 360  
 taccaggaga caatgggtga gtccactttt atgtacctga cgctggacct tcctactgcc  
 420  
 cccctctaca aggacagaaa ggagcagctc atcattcccc aagtgccact cttcaacatc  
 480  
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 540  
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 600  
 aagaacaact tctttgttga gaagaatcca actnattgtc aatttcccta ttacaaatgt  
 660  
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 720  
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 780  
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 900  
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 960  
 gctgatgatg gtaaataaga acacagaagc tgtagctgaa cacaggctgg ctggtgggct  
 1020  
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 1080  
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 1200  
 atgtgtgtaa cttatgtctt gattatcttg gattagttga agaacagata attccttcca  
 1260

aacatcaagc cttgggattc ttggagcaag cagaaagcca gtaacttcgc tctgttagag  
 1320  
 gtggaggatt ttcctatggt tccccccatt tctgatttg tatttttaga tggattaaat  
 1380  
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 1440  
 aaaa  
 1444

<210> 5448  
 <211> 189  
 <212> PRT  
 <213> Homo sapiens

<400> 5448  
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 Ile Thr Lys Gln Gly Asp Gly Val Asp Phe Leu Ser Trp Phe Leu Asn  
 20 25 30  
 Ala Leu His Ser Ala Leu Gly Gly Thr Lys Lys Lys Lys Thr Ile  
 35 40 45  
 Val Thr Asp Val Phe Gln Gly Ser Met Arg Ile Phe Thr Lys Lys Leu  
 50 55 60  
 Pro His Pro Asp Leu Pro Ala Glu Glu Lys Glu Gln Leu Leu His Asn  
 65 70 75 80  
 Asp Glu Tyr Gln Glu Thr Met Val Glu Ser Thr Phe Met Tyr Leu Thr  
 85 90 95  
 Leu Asp Leu Pro Thr Ala Pro Leu Tyr Lys Asp Glu Lys Glu Gln Leu  
 100 105 110  
 Ile Ile Pro Gln Val Pro Leu Phe Asn Ile Leu Ala Lys Phe Asn Gly  
 115 120 125  
 Ile Thr Glu Lys Glu Tyr Lys Thr Tyr Lys Glu Asn Phe Leu Lys Arg  
 130 135 140  
 Phe Gln Leu Thr Lys Leu Pro Pro Tyr Leu Ile Phe Cys Ile Lys Arg  
 145 150 155 160  
 Phe Thr Lys Asn Asn Phe Phe Val Glu Lys Asn Pro Thr Xaa Cys Gln  
 165 170 175  
 Phe Pro Tyr Tyr Lys Cys Gly Ser Glu Arg Ile Leu Val  
 180 185

<210> 5449  
 <211> 1359  
 <212> DNA  
 <213> Homo sapiens

<400> 5449  
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 120  
 ctggacacac agcccatcct gageccttct atcctagacc atctcatcaa taatgaccgc  
 180  
 aaactgcctc cagagtacaa ccttccccac acttacgttg aaatgcagtc actccagatt  
 240

gctgccttcc ttttcacggt ctgccatgtg gggattnntg tccaggactg gttcacagac  
 300  
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 360  
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 420  
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 720  
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 960  
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 1200  
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 1260  
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 1320  
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 1359

<210> 5450  
 <211> 293  
 <212> PRT  
 <213> Homo sapiens

<400> 5450  
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 Ile Thr Gln Glu Arg Ile Val Phe Leu Asp Thr Gln Pro Ile Leu Ser  
 35 40 45  
 Pro Ser Ile Leu Asp His Leu Ile Asn Asn Asp Arg Lys Leu Pro Pro  
 50 55 60  
 Glu Tyr Asn Leu Pro His Thr Tyr Val Glu Met Gln Ser Leu Gln Ile



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65          70          75          80
Ala Ala Phe Leu Phe Thr Val Cys His Val Gly Ile Xaa Val Gln Asp
      85          90          95
Trp Phe Thr Asp Leu Ser Leu Tyr Arg Phe Leu Gln Thr Ala Glu Met
      100        105        110
Val Lys Pro Ser Thr Pro Ser Pro Ser His Glu Ser Ser Ser Ser
      115        120        125
Gly Ser Asp Glu Gly Thr Glu Tyr Tyr Pro His Leu Val Phe Phe Gln
      130        135        140
Asn Lys Ala Arg Arg Glu Asp Phe Cys Pro Arg Lys Leu Arg Gln Met
      145        150        155        160
His Leu Met Ile Asp Gln Leu Met Ala His Ser His Leu Arg Tyr Lys
      165        170        175
Gly Thr Leu Ser Met Leu Gln Cys Asn Val Phe Pro Gly Leu Pro Pro
      180        185        190
Asp Phe Leu Asp Ser Glu Val Asn Leu Phe Leu Val Pro Phe Met Asp
      195        200        205
Ser Glu Ala Glu Ser Glu Asn Pro Pro Arg Ala Gly Pro Gly Ser Ser
      210        215        220
Pro Leu Phe Ser Leu Leu Pro Gly Tyr Arg Gly His Pro Ser Phe Gln
      225        230        235        240
Ser Leu Val Ser Lys Leu Arg Ser Gln Val Met Ser Met Ala Arg Pro
      245        250        255
Gln Leu Ser His Thr Ile Leu Thr Glu Lys Asn Trp Phe His Tyr Ala
      260        265        270
Ala Arg Ile Trp Asp Gly Val Arg Lys Ser Ser Ala Leu Ala Glu Tyr
      275        280        285
Ser Arg Leu Leu Ala
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<210> 5451  
 <211> 1184  
 <212> DNA  
 <213> Homo sapiens

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<400> 5451
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180
ccgtgttagc caggatggtc ttgatctcct gaccttgga tccaccagcc tcagcctccc
240
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300
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360
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420
tgccctttcc cagatgetgc aaacttccag ttgaaccctt tttctgtgt ggccctggg
480
gctgcgagac caaatccat gagttctgtg taccctagac ctttggaagg tgagagcagg
540

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gccctgagaa aaggcagcca cctcctctcc ctggctgaac ccttgccacc ctactcctca  
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 660  
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 720  
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 780  
 tactgccgaa gcctgaaact cccaggactt gtccttgatc cttccagaaa ccaccaggtc  
 840  
 cggcacttgg agccccccgg agagggacct cccagccgag ccctcaaaga actccatgaa  
 900  
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 960  
 acacctctgt ctccccccagg gctcgggatg tctccagcag cccggccacg cagcttccca  
 1020  
 ggtgggctcg gggaggtggg agcagggacc atctctgtcc cctccaccct cactccatcc  
 1080  
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 1140  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa  
 1184

&lt;210&gt; 5452

&lt;211&gt; 206

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5452

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 Arg Lys Gly Ser His Leu Leu Ser Leu Ala Glu Pro Leu Pro Pro Tyr  
 20 25 30  
 Ser Ser Pro Glu Leu Ser Val Ala Phe His His Ser Gly Pro Ser Cys  
 35 40 45  
 Leu Ser Pro Ala Leu Ser Gln Thr Thr Gln Lys Ser Gly His Leu Trp  
 50 55 60  
 Ala Pro Gly Met Val Thr Glu Glu Lys His Ala Val Pro Val Ser Pro  
 65 70 75 80  
 Gly Phe Cys Gln Lys Ile Glu Gln Val Gln Leu Thr His Cys Tyr Cys  
 85 90 95  
 Arg Ser Leu Lys Leu Pro Gly Leu Val Leu Asp Pro Ser Arg Asn His  
 100 105 110  
 Gln Val Arg His Leu Glu Pro Pro Gly Glu Gly Pro Pro Ser Arg Ala  
 115 120 125  
 Leu Lys Glu Leu His Glu Ile Arg Asn Cys Leu Met Lys Cys Ile Ser  
 130 135 140  
 Leu Tyr Leu Glu Asp Glu Ala Gln Thr Pro Thr Pro Leu Ser Pro Pro  
 145 150 155 160  
 Gly Leu Gly Met Ser Pro Ala Ala Arg Pro Arg Ser Phe Pro Gly Gly  
 165 170 175  
 Leu Gly Glu Val Gly Ala Gly Thr Ile Ser Val Pro Ser Thr Leu Thr  
 180 185 190  
 Pro Ser Thr Ser Glu Thr Thr Leu Pro Gln Pro Asp Thr Glu

195 200 205

<210> 5453  
<211> 1974  
<212> DNA  
<213> Homo sapiens

<400> 5453  
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 1860  
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 1920  
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 1974

&lt;210&gt; 5454

&lt;211&gt; 320

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5454

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 Val Tyr Arg Ser Arg Asp Phe Leu Val Val Asn Lys His Trp Asp Val  
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 Arg Ile Asp Ser Lys Ala Trp Arg Glu Thr Leu Thr Leu Gln Lys Gln  
 35 40 45  
 Leu Arg Tyr Arg Phe Pro Glu Leu Ala Asp Pro Asp Thr Cys Tyr Gly  
 50 55 60  
 Phe Arg Phe Cys His Gln Leu Asp Phe Ser Thr Ser Gly Ala Leu Cys  
 65 70 75 80  
 Val Ala Leu Asn Lys Ala Ala Ala Gly Ser Ala Tyr Arg Cys Phe Lys  
 85 90 95  
 Glu Arg Arg Val Thr Lys Ala Tyr Leu Ala Leu Leu Arg Gly His Ile  
 100 105 110  
 Gln Glu Ser Arg Val Thr Ile Ser His Ala Ile Gly Arg Asn Ser Thr  
 115 120 125  
 Glu Gly Arg Ala His Thr Met Cys Ile Glu Gly Ser Gln Gly Val Ala  
 130 135 140  
 Gly Cys Glu Asn Pro Lys Pro Ser Leu Thr Asp Leu Val Val Leu Glu  
 145 150 155 160  
 His Gly Leu Tyr Ala Gly Asp Pro Val Ser Lys Val Leu Leu Lys Pro  
 165 170 175  
 Leu Thr Gly Arg Thr His Gln Leu Arg Val His Cys Ser Ala Leu Gly  
 180 185 190  
 His Pro Val Val Gly Asp Leu Thr Tyr Gly Glu Val Ser Gly Arg Glu  
 195 200 205  
 Asp Arg Pro Phe Arg Met Met Leu His Ala Phe Tyr Leu Arg Ile Pro

210		215		220
Thr Asp Thr Glu Cys Val	Glu Val Cys Thr Pro Asp Pro Phe Leu Pro			
225	230	235	240	
Ser Leu Asp Ala Cys Trp	Ser Pro His Thr Leu Leu Gln Ser Leu Asp			
	245	250	255	
Gln Leu Val Gln Ala Leu	Arg Ala Thr Pro Asp Pro Asp Pro Glu Asp			
	260	265	270	
Arg Gly Pro Arg Pro Gly	Ser Pro Ser Ala Leu Leu Pro Gly Pro Gly			
	275	280	285	
Arg Pro Pro Pro Pro Thr	Lys Pro Pro Glu Thr Glu Ala Gln Arg			
	290	295	300	
Gly Pro Cys Leu Gln Trp	Leu Ser Glu Trp Thr Leu Glu Pro Asp Ser			
305	310	315	320	

<210> 5455  
 <211> 975  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 780  
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<210> 5456  
 <211> 149  
 <212> PRT  
 <213> Homo sapiens

<400> 5456  
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 20 25 30  
 Leu Tyr Gly Leu Ala Ser Phe Arg Pro Gly Val Gly Pro His Pro Thr  
 35 40 45  
 His Cys Pro Leu Ala Val Arg Leu Ala Cys Pro Ala Val Pro Thr Thr  
 50 55 60  
 Val Val Lys Gln Arg Leu Gln Met Tyr Asn Ser Gln His Arg Ser Ala  
 65 70 75 80  
 Ile Ser Cys Ile Arg Thr Val Trp Arg Thr Glu Gly Leu Gly Ala Phe  
 85 90 95  
 Tyr Arg Ser Tyr Thr Thr Gln Leu Thr Met Asn Ile Pro Phe Gln Ser  
 100 105 110  
 Ile His Phe Ile Thr Tyr Glu Phe Leu Gln Glu Gln Val Asn Pro His  
 115 120 125  
 Arg Thr Tyr Asn Pro Gln Ser His Ile Ile Ser Gly Gly Leu Ala Gly  
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 Ala Leu Ala Ala Ala  
 145

<210> 5457  
 <211> 448  
 <212> DNA  
 <213> Homo sapiens

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 420  
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<210> 5458  
 <211> 81  
 <212> PRT

<213> Homo sapiens

<400> 5458

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Arg Ser Gly Ser Val Gly Ser Gln Ala Val Ala Arg Arg Met Asp Gly
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Asp Ser Arg Asp Gly Gly Gly Lys Asp Ala Thr Gly Ser Glu Asp
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Tyr Glu Asn Leu Pro Thr Ser Ala Ser Val Ser Thr His Met Thr Ala
 35           40           45
Gly Ala Met Ala Gly Ile Leu Glu His Ser Val Met Tyr Pro Val Asp
 50           55           60
Ser Val Lys Val Met Trp Thr Val Glu Leu Cys Ala Gly His Phe Gln
 65           70           75           80
Pro

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<210> 5459

<211> 1468

<212> DNA

<213> Homo sapiens

<400> 5459

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120
cggatgggagc tgcgcagcgg gagcgtgggc agccaggcgg tggcgcggag gatggatggg
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240
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cactcgggtca tgtaccgggt ggactcgggt aagacacgaa tgcagagttt gagtccagat
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480
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720
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840
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960

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 1380  
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 1440  
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 1468

<210> 5460  
 <211> 155  
 <212> PRT  
 <213> Homo sapiens

<400> 5460  
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 Ser Glu Asp Tyr Glu Asn Leu Pro Thr Ser Ala Ser Val Ser Thr His  
 35 40 45  
 Met Thr Ala Gly Ala Met Ala Gly Ile Leu Glu His Ser Val Met Tyr  
 50 55 60  
 Pro Val Asp Ser Val Lys Thr Arg Met Gln Ser Leu Ser Pro Asp Pro  
 65 70 75 80  
 Lys Ala Gln Tyr Thr Ser Ile Tyr Gly Ala Leu Lys Lys Ile Met Gln  
 85 90 95  
 Thr Glu Gly Phe Trp Arg Pro Leu Arg Gly Val Asn Val Met Ile Met  
 100 105 110  
 Gly Ala Gly Pro Ala His Ala Met Tyr Phe Ala Cys Tyr Glu Asn Met  
 115 120 125  
 Lys Arg Thr Leu Asn Asp Val Phe His His Gln Gly Asn Ser His Leu  
 130 135 140  
 Ala Asn Gly Ile Leu Lys Ala Phe Val Trp Ser  
 145 150 155

<210> 5461  
 <211> 1725  
 <212> DNA  
 <213> Homo sapiens

<400> 5461  
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180  
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240  
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300  
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<210> 5462

<211> 159

<212> PRT

<213> Homo sapiens

<400> 5462

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			20					25					30		
Leu	Gly	Ile	Cys	Tyr	Asp	Met	Arg	Phe	Ala	Glu	Leu	Ala	Gln	Ile	Tyr
		35					40					45			
Ala	Gln	Arg	Gly	Cys	Gln	Leu	Leu	Val	Tyr	Pro	Gly	Ala	Phe	Asn	Leu
	50					55					60				
Thr	Thr	Gly	Pro	Ala	His	Trp	Glu	Leu	Leu	Gln	Arg	Ser	Arg	Ala	Val
	65				70					75				80	
Asp	Asn	Gln	Val	Tyr	Val	Ala	Thr	Ala	Ser	Pro	Ala	Arg	Asp	Asp	Lys
		85							90					95	
Ala	Ser	Tyr	Val	Ala	Trp	Gly	His	Ser	Thr	Val	Val	Asn	Pro	Trp	Gly
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Glu	Val	Leu	Ala	Lys	Ala	Gly	Thr	Glu	Glu	Ala	Ile	Val	Tyr	Ser	Asp
		115					120						125		
Ile	Asp	Leu	Lys	Lys	Leu	Ala	Glu	Ile	Arg	Gln	Gln	Ile	Pro	Val	Phe
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<210> 5463

<211> 792

<212> DNA

<213> Homo sapiens

<400> 5463

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180  
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240  
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300  
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360  
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420  
tccaggaact tcttgagaac acccgatcgc agagggtaat tttctggagt ttgttttgca  
480  
gggtagctg ggagtatggc caccctgctc cacgatgcgg taatgaatcc agcagaagtg  
540

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 660  
 atgaacatcc ccttccagtc catccacttc atcacctatg agttcctgca ggagcaggtc  
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 780  
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 792

<210> 5464  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 5464  
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 Leu His Asp Ala Val Met Asn Pro Ala Glu Val Val Lys Gln Arg Leu  
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 Gln Met Tyr Asn Ser Gln His Arg Ser Ala Ile Ser Cys Ile Arg Thr  
 35 40 45  
 Val Trp Arg Thr Glu Gly Leu Gly Ala Phe Tyr Arg Ser Tyr Thr Thr  
 50 55 60  
 Gln Leu Thr Met Asn Ile Pro Phe Gln Ser Ile His Phe Ile Thr Tyr  
 65 70 75 80  
 Glu Phe Leu Gln Glu Gln Val Asn Pro His Arg Thr Tyr Asn Pro Gln  
 85 90 95  
 Ser His Ile Ile Ser Gly Gly Leu Ala Gly Ala Leu Ala Ala Ala  
 100 105 110

<210> 5465  
 <211> 497  
 <212> DNA  
 <213> Homo sapiens

<400> 5465  
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 300  
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 360  
 aacccccggc aggagacctc cctgacccc tctgctgect ctctgtggg accctccagt  
 420  
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<210> 5466  
<211> 134  
<212> PRT  
<213> Homo sapiens

<400> 5466  
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Val Arg Asp Glu Pro Pro Ala Lys Pro Val Gly Met Ser Gly Pro Ser  
35 40 45  
Trp Trp Asp Cys Leu Gly His Arg His Gln His Gly Val Arg Ala Ile  
50 55 60  
Ser Gly Asp Ile Gly Gly Ala Thr Thr Arg Trp Gly Ile Phe Asn Arg  
65 70 75 80  
Leu Glu Pro Leu Arg Leu Glu Arg Pro Thr Pro Gly Arg Arg Pro Pro  
85 90 95  
Leu Thr Pro Leu Leu Pro Leu Leu Trp Asp Pro Pro Val Asp Thr Pro  
100 105 110  
Asp Glu Asp Thr Gln Glu Ala Ser Ser Gln Asp Arg Arg Gln Leu Pro  
115 120 125  
Gly Gln Pro Arg Ser Ala  
130

<210> 5467  
<211> 1329  
<212> DNA  
<213> Homo sapiens

<400> 5467  
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&lt;210&gt; 5468

&lt;211&gt; 363

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5468

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Asn	Ala	His	Phe	Pro	Glu	His	Leu	Asp	His	Phe	Thr	Glu	Asn	Met	Glu
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Asp	Phe	Ser	Asn	Asp	Leu	Phe	Ser	Ser	Phe	Phe	Asp	Asp	Pro	Val	Leu
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Asp	Glu	Lys	Ser	Pro	Leu	Leu	Asp	Met	Glu	Leu	Asp	Ser	Pro	Thr	Pro
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Gly	Ile	Gln	Ala	Glu	His	Ser	Tyr	Ser	Leu	Ser	Gly	Asp	Ser	Ala	Pro
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Gln	Ser	Pro	Leu	Val	Pro	Ile	Lys	Met	Glu	Asp	Thr	Thr	Gln	Asp	Ala
		100					105					110			
Glu	His	Gly	Ala	Trp	Ala	Leu	Gly	His	Lys	Leu	Cys	Ser	Ile	Met	Val
	115					120					125				
Lys	Gln	Glu	Gln	Ser	Pro	Glu	Leu	Pro	Val	Asp	Pro	Leu	Ala	Ala	Pro
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Ser	Ala	Met	Ala	Ala	Ala	Ala	Ala	Met	Ala	Thr	Thr	Pro	Leu	Leu	Gly
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Leu	Ser	Pro	Leu	Ser	Arg	Leu	Pro	Ile	Pro	His	Gln	Ala	Pro	Gly	Glu



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&lt;210&gt; 5470

&lt;211&gt; 427

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5470

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 Leu Glu Phe Met Lys Arg Asp Leu Thr Glu Phe Thr Gln Val Val Gln  
 35 40 45  
 His Asp Thr Ala Cys Thr Ile Ala Ala Thr Ala Ser Val Val Lys Glu  
 50 55 60  
 Lys Leu Ala Thr Glu Gly Ser Ser Gly Ala Thr Glu Lys Met Lys Lys  
 65 70 75 80  
 Gly Leu Ser Asp Phe Leu Gly Val Ile Ser Asp Thr Phe Ala Pro Ser  
 85 90 95  
 Pro Asp Lys Thr Ile Asp Cys Asp Val Ile Thr Leu Met Gly Thr Pro  
 100 105 110  
 Ser Gly Thr Ala Glu Pro Tyr Asp Gly Thr Lys Ala Arg Leu Tyr Ser  
 115 120 125  
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 130 135 140  
 Glu Leu Phe Asp Ala Trp Leu Ser Gln Phe Cys Leu Glu Glu Lys Lys  
 145 150 155 160  
 Gly Glu Ile Ser Glu Leu Leu Val Gly Ser Pro Ser Ile Arg Ala Leu  
 165 170 175  
 Tyr Thr Lys Met Val Pro Ala Ala Val Ser His Ser Glu Phe Trp His  
 180 185 190  
 Arg Tyr Phe Tyr Lys Val His Gln Leu Glu Gln Glu Gln Ala Arg Arg

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 Asp Ala Leu Lys Gln Arg Ala Glu Gln Ser Ile Ser Glu Glu Pro Gly  
 210                      215                      220  
 Trp Glu Glu Glu Glu Glu Leu Met Gly Ile Ser Pro Ile Ser Pro  
 225                      230                      235                      240  
 Lys Glu Ala Lys Val Pro Val Ala Lys Ile Ser Thr Phe Pro Glu Gly  
 245                      250                      255  
 Glu Pro Gly Pro Gln Ser Pro Cys Glu Glu Asn Leu Val Thr Ser Val  
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 Glu Pro Pro Ala Glu Val Thr Pro Ser Glu Ser Ser Glu Ser Ile Ser  
 275                      280                      285  
 Leu Val Thr Gln Ile Ala Asn Pro Ala Thr Ala Pro Glu Ala Arg Val  
 290                      295                      300  
 Leu Pro Lys Asp Leu Ser Gln Lys Leu Leu Glu Ala Ser Leu Glu Glu  
 305                      310                      315                      320  
 Gln Gly Leu Ala Val Asp Val Gly Glu Thr Gly Pro Ser Pro Pro Ile  
 325                      330                      335  
 His Ser Lys Pro Leu Thr Pro Ala Gly His Thr Gly Gly Pro Glu Pro  
 340                      345                      350  
 Arg Pro Pro Ala Arg Val Glu Thr Leu Arg Glu Glu Ala Pro Thr Asp  
 355                      360                      365  
 Leu Arg Val Phe Glu Leu Asn Ser Asp Ser Gly Lys Ser Thr Pro Ser  
 370                      375                      380  
 Asn Asn Gly Lys Lys Gly Ser Ser Thr Asp Ile Ser Glu Asp Trp Glu  
 385                      390                      395                      400  
 Lys Asp Phe Asp Leu Asp Met Thr Glu Glu Glu Val Gln Met Ala Leu  
 405                      410                      415  
 Ser Lys Val Asp Ala Ser Gly Glu Leu Lys Met  
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&lt;210&gt; 5471

&lt;211&gt; 534

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5471

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<210> 5472  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 5472  
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 35 40 45  
 Phe Leu Cys Leu Cys Thr His Ala Gly Ala Gly Gly Ser Val His Thr  
 50 55 60  
 Pro Pro Arg Leu Arg Ala Arg Pro Tyr Met Pro Cys Ala Pro Thr Gln  
 65 70 75 80  
 Ala Gly Leu Gly Ser Leu His Ser Pro Leu Arg Val His Ser His Ile  
 85 90 95  
 Ala Thr His Ser Cys Pro His Lys Leu Val Ser Leu Tyr Ser Ala His  
 100 105 110  
 Gly His Thr Cys Ala Pro His Leu Ala Thr Arg Thr Pro Gly Leu Cys  
 115 120 125  
 Ile Pro His Pro Gly Ser Gly Pro Arg Val Val Gly Pro Ala Gly Ser  
 130 135 140  
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<210> 5473  
 <211> 691  
 <212> DNA  
 <213> Homo sapiens

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<210> 5474  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

<400> 5474  
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 Ser Pro Ser Pro Gly Ile Arg Ser Ile Met Ser Ser Ala Ile Ala Tyr  
 35 40 45  
 Leu Cys Gly His Leu His Thr Leu Gly Gly Leu Met Pro Val Leu His  
 50 55 60  
 Thr Arg His Phe Gln Gly Thr Leu Glu Leu Glu Val Gly Asp Trp Lys  
 65 70 75 80  
 Asp Asn Arg Arg Tyr Arg Ile Phe Ala Phe Asp His Asp Leu Phe Ser  
 85 90 95  
 Phe Ala Asp Leu Ile Phe Gly Lys Trp Pro Val Val Leu Ile Thr Asn  
 100 105 110  
 Pro Lys Ser Leu Leu Tyr Ser Cys Gly Glu His Glu Pro Leu Glu Arg  
 115 120 125  
 Leu Leu His Ser Thr His Ile Arg Leu Val Thr  
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<210> 5475  
 <211> 628  
 <212> DNA  
 <213> Homo sapiens

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<210> 5476  
 <211> 209  
 <212> PRT  
 <213> Homo sapiens

<400> 5476  
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 35 40 45  
 Ala Pro Pro Pro Val Ser Ser Ser Asp Ser Glu Ala Pro Glu Ala Asn  
 50 55 60  
 Pro Ala Asp Gly Ser Asp Ala Asp Glu Asp Asp Glu Asp Arg Gly Val  
 65 70 75 80  
 Met Ala Val Thr Ala Val Thr Ala Thr Ala Ser Asp Arg Met Glu  
 85 90 95  
 Ser Asp Ser Asp Ser Asp Lys Ser Ser Asp Asn Ser Gly Leu Lys Arg  
 100 105 110  
 Lys Thr Pro Ala Leu Lys Met Ser Val Ser Lys Arg Ala Arg Lys Ala  
 115 120 125  
 Ser Ser Asp Leu Asp Gln Ala Ser Val Ser Pro Ser Glu Glu Glu Asn  
 130 135 140  
 Ser Glu Ser Ser Ser Glu Ser Glu Lys Thr Ser Asp Gln Asp Phe Thr  
 145 150 155 160  
 Pro Glu Lys Lys Ala Ala Val Arg Ala Pro Arg Arg Gly Pro Leu Gly  
 165 170 175  
 Gly Arg Lys Lys Lys Lys Ala Pro Ser Ala Ser Asp Ser Asp Ser Lys  
 180 185 190  
 Ala Asp Ser Asp Gly Ala Lys Pro Glu Pro Val Ala Met Ala Arg Ser  
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<210> 5477  
 <211> 727  
 <212> DNA  
 <213> Homo sapiens

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<210> 5478  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 5478  
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 20 25 30  
 Ala Pro Gly Gln Arg Gly Arg Lys Arg Trp Leu Leu Val Arg Leu Tyr  
 35 40 45  
 Lys Thr Trp Pro Leu Thr Cys Arg Pro Pro Thr Gln Leu Ala Gly Trp  
 50 55 60  
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 Leu Ser Pro

<210> 5479  
 <211> 1386  
 <212> DNA  
 <213> Homo sapiens

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<210> 5480

<211> 251

<212> PRT

<213> Homo sapiens

<400> 5480

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Arg	Arg	Gln	Ala	Arg	Glu	Gln	Arg	Glu	Arg	Glu	Gln	Glu	Arg	Arg	
		20					25					30			
Leu	Gln	Ala	Glu	Arg	Asp	Lys	Arg	Met	Arg	Glu	Glu	Gln	Leu	Ala	Arg

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  65      70      75      80
Arg Leu Gln Lys Gln Lys Glu Glu Ala Glu Ala Arg Ser Arg Glu Glu
      85      90      95
Ala Glu Arg Gln Arg Leu Glu Arg Glu Lys His Phe Gln Gln Gln Glu
      100      105      110
Gln Glu Arg Gln Glu Arg Arg Lys Arg Leu Glu Glu Ile Met Lys Arg
      115      120      125
Thr Arg Lys Ser Glu Val Ser Glu Thr Lys Gln Lys Gln Asp Ser Lys
      130      135      140
Glu Ala Asn Ala Asn Gly Ser Ser Pro Glu Pro Val Lys Ala Val Glu
      145      150      155      160
Ala Arg Ser Pro Gly Leu Gln Lys Glu Ala Val Gln Lys Glu Glu Pro
      165      170      175
Ile Pro Gln Glu Pro Gln Trp Ser Leu Pro Ser Lys Glu Leu Pro Ala
      180      185      190
Ser Leu Val Asn Gly Leu Gln Pro Leu Pro Ala His Gln Glu Asn Gly
      195      200      205
Phe Ser Thr Asn Gly Pro Ser Gly Asp Lys Ser Leu Ser Arg Thr Pro
      210      215      220
Glu Thr Leu Leu Pro Phe Ala Glu Ala Glu Ala Phe Leu Lys Lys Ala
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Val Val Gln Ser Pro Gln Val Thr Glu Val Leu
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&lt;210&gt; 5481

&lt;211&gt; 1513

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5481

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  600

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&lt;210&gt; 5482

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5482

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 20 25 30  
 Leu Arg Asn Pro Ser Ala Ala Phe Cys Val Ala Arg Leu Gln Asp  
 35 40 45  
 Phe Lys Leu Asp Phe Gly Asn Ser Gln Gly Lys Thr Ser Gln Thr Trp  
 50 55 60  
 His Gly Gly Ile Ala Thr Ile Phe Gln Ser Pro Gly Asp Glu Leu Trp  
 65 70 75 80  
 Gly Val Val Trp Lys Met Asn Lys Ser Asn Leu Asn Ser Leu Asp Glu  
 85 90 95  
 Gln Glu Gly Val Lys Ser Gly Met Tyr Val Val Ile Glu Val Lys Val  
 100 105 110  
 Ala Thr Gln Glu Gly Lys Glu Ile Thr Cys Arg Ser Tyr Leu Met Thr

AREA

		115					120					125					
Asn	Tyr	Glu	Ser	Ala	Pro	Pro	Ser	Pro	Gln	Tyr	Lys	Lys	Ile	Ile	Cys		
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<210> 5483
<211> 1552
<212> DNA
<213> Homo sapiens
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<400> 5483

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1140
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4655



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<210> 5484

<211> 357

<212> PRT

<213> Homo sapiens

<400> 5484

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 Ile Asp Ile Ile Asn Leu Asp Thr Phe Thr Tyr Ile Glu Ser Ala Ser  
 35 40 45  
 Glu Leu Arg Gly Gly Phe Asp Trp Ser Leu His Phe Gln Trp Glu Gln  
 50 55 60  
 Leu Ser Pro Glu Gln Lys Ala Arg Arg Leu Asp Pro Thr Glu Pro Ile  
 65 70 75 80  
 Arg Thr Pro Ile Ile Ala Gly Gly Leu Phe Val Ile Asp Lys Ala Trp  
 85 90 95  
 Phe Asp Tyr Leu Gly Lys Tyr Asp Met Asp Met Asp Ile Trp Gly Gly  
 100 105 110  
 Glu Asn Phe Glu Ile Ser Phe Arg Val Trp Met Cys Gly Gly Ser Leu  
 115 120 125  
 Glu Ile Val Pro Cys Ser Arg Val Gly His Val Phe Arg Lys Lys His  
 130 135 140  
 Pro Tyr Val Phe Pro Asp Gly Asn Ala Asn Thr Tyr Ile Lys Asn Thr  
 145 150 155 160  
 Lys Arg Thr Ala Glu Val Trp Met Asp Glu Tyr Lys Gln Tyr Tyr Tyr  
 165 170 175  
 Ala Ala Arg Pro Phe Ala Leu Glu Arg Pro Phe Gly Asn Val Glu Ser  
 180 185 190  
 Arg Leu Asp Leu Arg Lys Asn Leu Arg Cys Gln Ser Phe Lys Trp Tyr  
 195 200 205  
 Leu Glu Asn Ile Tyr Pro Glu Leu Ser Ile Pro Lys Glu Phe Ser Ile  
 210 215 220  
 Gln Lys Gly Asn Ile Arg Gln Arg Gln Lys Cys Leu Glu Ser Gln Arg  
 225 230 235 240  
 Gln Asn Asn Gln Glu Thr Pro Asn Leu Lys Leu Ser Pro Cys Ala Lys  
 245 250 255  
 Val Lys Gly Glu Asp Ala Lys Ser Gln Val Trp Ala Phe Thr Tyr Thr

	260		265		270										
Gln	Lys	Ile	Leu	Gln	Glu	Glu	Leu	Cys	Leu	Ser	Val	Ile	Thr	Leu	Phe
	275				280				285						
Pro	Gly	Ala	Pro	Val	Val	Leu	Val	Leu	Cys	Lys	Asn	Gly	Asp	Asp	Arg
	290				295				300						
Gln	Gln	Trp	Thr	Lys	Thr	Gly	Ser	His	Ile	Glu	His	Ile	Ala	Ser	His
	305				310				315					320	
Leu	Cys	Leu	Asp	Thr	Asp	Met	Phe	Gly	Asp	Gly	Thr	Glu	Asn	Gly	Lys
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Glu	Ile	Val	Val	Asn	Pro	Cys	Glu	Ser	Ser	Leu	Met	Ser	Gln	His	Trp
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Asp	Met	Val	Ser	Ser											
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&lt;210&gt; 5485

&lt;211&gt; 1549

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5485

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 720  
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 780  
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 960  
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 1020

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 1320  
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<210> 5486

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5486

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 35 40 45  
 Val Ser Ser Arg Phe Ser Ser Arg Ser Arg Arg Ser Lys Ser Arg Ser  
 50 55 60  
 Arg Ser Arg Arg Arg His Gln Arg Lys Tyr Arg Arg Tyr Ser Arg Ser  
 65 70 75 80  
 Tyr Ser Arg Ser Arg Ser Arg Ser Arg Ser Arg Tyr Arg Glu Arg  
 85 90 95  
 Arg Tyr Gly Phe Thr Arg Arg Tyr Tyr Arg Ser Pro Ser Arg Tyr Arg  
 100 105 110  
 Ser Arg Ser Arg Ser Arg Ser Arg Ser Arg Gly Arg Ser Tyr Cys Gly  
 115 120 125  
 Arg Ala Tyr Ala Ile Ala Arg Gly Gln Arg Tyr Tyr Gly Phe Gly Arg  
 130 135 140  
 Thr Val Tyr Pro Glu Glu His Ser Arg Trp Arg Asp Arg Ser Arg Thr  
 145 150 155 160  
 Arg Ser Arg Ser Arg Thr Pro Phe Arg Leu Ser Glu Lys Asp Arg Met  
 165 170 175  
 Glu Leu Leu Glu Ile Ala Lys Thr Asn Ala Ala Lys Ala Leu Gly Thr  
 180 185 190  
 Thr Asn Ile Asp Leu Pro Ala Ser Leu Arg Thr Val Pro Ser Ala Lys  
 195 200 205  
 Glu Thr Ser Arg Gly Ile Gly Val Ser Ser Asn Gly Ala Lys Pro Glu  
 210 215 220  
 Leu Ser Glu Lys Val Thr Glu Asp Gly Thr Arg Asn Pro Asn Glu Lys

225                      230                      235                      240  
 Pro Thr Gln Gln Arg Ser Ile Ala Phe Ser Ser Asn Asn Ser Val Ala  
                                  245                      250                      255  
 Lys Pro Ile Gln Lys Ser Ala Lys Ala Ala Thr Glu Glu Ala Ser Ser  
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<210> 5487  
 <211> 1716  
 <212> DNA  
 <213> Homo sapiens

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 420  
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 1680  
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 1716

&lt;210&gt; 5488

&lt;211&gt; 272

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5488

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 Gln Tyr Thr Ser Ile Tyr Gly Ala Leu Lys Lys Ile Met Arg Thr Glu  
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 Gly Phe Trp Arg Pro Leu Arg Gly Val Asn Val Met Ile Met Gly Ala  
 35 40 45  
 Gly Pro Ala His Ala Met Tyr Phe Ala Cys Tyr Glu Asn Met Lys Arg  
 50 55 60  
 Thr Leu Asn Asp Val Phe His His Gln Gly Asn Ser His Leu Ala Asn  
 65 70 75 80  
 Gly Ile Ala Gly Ser Met Ala Thr Leu Leu His Asp Ala Val Met Asn  
 85 90 95  
 Pro Ala Glu Val Val Lys Gln Arg Leu Gln Met Tyr Asn Ser Gln His  
 100 105 110  
 Arg Ser Ala Ile Ser Cys Ile Arg Thr Val Trp Arg Thr Glu Gly Leu  
 115 120 125  
 Gly Ala Phe Tyr Arg Ser Tyr Thr Thr Gln Leu Thr Met Asn Ile Pro  
 130 135 140  
 Phe Gln Ser Ile His Phe Ile Thr Tyr Glu Phe Leu Gln Glu Gln Val  
 145 150 155 160  
 Asn Pro His Arg Thr Tyr Asn Pro Gln Ser His Ile Ile Ser Gly Gly  
 165 170 175  
 Leu Ala Gly Ala Leu Ala Ala Ala Thr Thr Pro Leu Asp Val Cys  
 180 185 190  
 Lys Thr Leu Leu Asn Thr Gln Glu Asn Val Ala Leu Ser Leu Ala Asn  
 195 200 205  
 Ile Ser Gly Arg Leu Ser Gly Met Ala Asn Ala Phe Arg Thr Val Tyr

210		215		220
Gln Leu Asn Gly Leu Ala Gly Tyr Phe Lys Gly Ile Gln Ala Arg Val				
225		230		235
Ile Tyr Gln Met Pro Ser Thr Ala Ile Ser Trp Ser Val Tyr Glu Phe				240
	245		250	255
Phe Lys Tyr Phe Leu Thr Lys Arg Gln Leu Glu Asn Arg Ala Pro Tyr				
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<210> 5489  
 <211> 1600  
 <212> DNA  
 <213> Homo sapiens

<400> 5489  
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<210> 5490  
 <211> 357  
 <212> PRT  
 <213> Homo sapiens

<400> 5490  
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 Leu Glu Lys Ile Leu Gln Arg Gln Phe Ser Ser Ser Asn Ser Pro Arg  
 35 40 45  
 Gly Ile Ile Phe Thr Arg Thr Arg Gln Ser Ala His Ser Leu Leu Leu  
 50 55 60  
 Trp Leu Gln Gln Gln Gln Gly Leu Gln Thr Val Asp Ile Arg Ala Gln  
 65 70 75 80  
 Leu Leu Ile Gly Ala Gly Asn Ser Ser Gln Ser Thr His Met Thr Gln  
 85 90 95  
 Arg Asp Gln Gln Glu Val Ile Gln Lys Phe Gln Asp Gly Thr Leu Asn  
 100 105 110  
 Leu Leu Val Ala Thr Ser Val Ala Glu Glu Gly Leu Asp Ile Pro His  
 115 120 125  
 Cys Asn Val Val Val Arg Tyr Gly Leu Leu Thr Asn Glu Ile Ser Met  
 130 135 140  
 Val Gln Ala Arg Gly Arg Ala Arg Ala Asp Gln Ser Val Tyr Ala Phe  
 145 150 155 160  
 Val Ala Thr Glu Gly Ser Arg Glu Leu Lys Arg Glu Leu Ile Asn Glu  
 165 170 175  
 Ala Leu Glu Thr Leu Met Glu Gln Ala Val Ala Ala Val Gln Lys Met  
 180 185 190  
 Asp Gln Ala Glu Tyr Gln Ala Lys Ile Arg Asp Leu Gln Gln Ala Ala  
 195 200 205  
 Leu Thr Lys Arg Ala Ala Gln Ala Ala Gln Arg Glu Asn Gln Arg Gln  
 210 215 220  
 Gln Phe Pro Val Glu His Val Gln Leu Leu Cys Ile Asn Cys Met Val  
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 Ala Val Gly His Gly Ser Asp Leu Arg Lys Val Glu Gly Thr His His  
 245 250 255  
 Val Asn Val Asn Pro Asn Phe Ser Asn Tyr Tyr Asn Val Ser Arg Asp

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Pro Val Val Ile Asn Lys Val Phe Lys Asp Trp Lys Pro Gly Gly Val
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Lys Ser Val Lys Leu Pro Val Leu Lys Val Arg Ser Met Leu Leu Glu
      305      310      315      320
Thr Pro Gln Gly Arg Ile Gln Ala Lys Lys Trp Ser Arg Val Pro Phe
      325      330      335
Ser Val Pro Asp Phe Asp Phe Leu Gln His Cys Ala Glu Asn Leu Ser
      340      345      350
Asp Leu Ser Leu Asp
      355

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&lt;210&gt; 5491

&lt;211&gt; 5555

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5491

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420
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480
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5640  
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&lt;210&gt; 5494

&lt;211&gt; 1278

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5494

Met Thr Ala Arg Gly Leu Ala Leu Gly Leu Leu Leu Leu Leu Cys  
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 Pro Ala Gln Val Phe Ser Gln Ser Cys Val Trp Tyr Gly Glu Cys Gly  
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 Ile Ala Tyr Gly Asp Lys Arg Tyr Asn Cys Glu Tyr Ser Gly Pro Pro  
 35 40 45  
 Lys Pro Leu Pro Lys Asp Gly Tyr Asp Leu Val Gln Glu Leu Cys Pro  
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 Gly Phe Phe Phe Gly Asn Val Ser Leu Cys Cys Asp Val Arg Gln Leu  
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 Gln Thr Leu Lys Asp Asn Leu Gln Leu Pro Leu Gln Phe Leu Ser Arg  
 85 90 95  
 Cys Pro Ser Cys Phe Tyr Asn Leu Leu Asn Leu Phe Cys Glu Leu Thr  
 100 105 110  
 Cys Ser Pro Arg Gln Ser Gln Phe Leu Asn Val Thr Ala Thr Glu Asp  
 115 120 125  
 Tyr Val Asp Pro Val Thr Asn Gln Thr Lys Thr Asn Val Lys Glu Leu  
 130 135 140  
 Gln Tyr Tyr Val Gly Gln Ser Phe Ala Asn Ala Met Tyr Asn Ala Cys

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145          150          155          160
Arg Asp Val Glu Ala Pro Ser Ser Asn Asp Lys Ala Leu Gly Leu Leu
          165          170          175
Cys Gly Lys Asp Ala Asp Ala Cys Asn Ala Thr Asn Trp Ile Glu Tyr
          180          185          190
Met Phe Asn Lys Asp Asn Gly Gln Ala Pro Phe Thr Ile Thr Pro Val
          195          200          205
Phe Ser Asp Phe Pro Val His Gly Met Glu Pro Met Asn Asn Ala Thr
          210          215          220
Lys Gly Cys Asp Glu Ser Val Asp Glu Val Thr Ala Pro Cys Ser Cys
225          230          235          240
Gln Asp Cys Ser Ile Val Cys Gly Pro Lys Pro Gln Pro Pro Pro Pro
          245          250          255
Pro Ala Pro Trp Thr Ile Leu Gly Leu Asp Ala Met Tyr Val Ile Met
          260          265          270
Trp Ile Thr Tyr Met Ala Phe Leu Leu Val Phe Phe Gly Ala Phe Phe
          275          280          285
Ala Val Trp Cys Tyr Arg Lys Arg Tyr Phe Val Ser Glu Tyr Thr Pro
          290          295          300
Ile Asp Ser Asn Ile Ala Phe Ser Val Asn Ala Ser Asp Lys Gly Glu
305          310          315          320
Ala Ser Cys Cys Asp Pro Val Ser Ala Ala Phe Glu Gly Cys Leu Arg
          325          330          335
Arg Leu Phe Thr Arg Trp Gly Ser Phe Cys Val Arg Asn Pro Gly Cys
          340          345          350
Val Ile Phe Phe Ser Leu Val Phe Ile Thr Ala Cys Ser Ser Gly Leu
          355          360          365
Val Phe Val Arg Val Thr Thr Asn Pro Val Asp Leu Trp Ser Ala Pro
          370          375          380
Ser Ser Gln Ala Arg Leu Glu Lys Glu Tyr Phe Asp Gln His Phe Gly
385          390          395          400
Pro Phe Phe Arg Thr Glu Gln Leu Ile Ile Arg Ala Pro Leu Thr Asp
          405          410          415
Lys His Ile Tyr Gln Pro Tyr Pro Ser Gly Ala Asp Val Pro Phe Gly
          420          425          430
Pro Pro Leu Asp Ile Gln Ile Leu His Gln Val Leu Asp Leu Gln Ile
          435          440          445
Ala Ile Glu Asn Ile Thr Ala Ser Tyr Asp Asn Glu Thr Val Thr Leu
          450          455          460
Gln Asp Ile Cys Leu Ala Pro Leu Ser Pro Tyr Asn Thr Asn Cys Thr
465          470          475          480
Ile Leu Ser Val Leu Asn Tyr Phe Gln Asn Ser His Ser Val Leu Asp
          485          490          495
His Lys Lys Gly Asp Asp Phe Phe Val Tyr Ala Asp Tyr His Thr His
          500          505          510
Phe Leu Tyr Cys Val Arg Ala Pro Ala Ser Leu Asn Asp Thr Ser Leu
          515          520          525
Leu His Asp Pro Cys Leu Gly Thr Phe Gly Gly Pro Val Phe Pro Trp
          530          535          540
Leu Val Leu Gly Gly Tyr Asp Asp Gln Asn Tyr Asn Asn Ala Thr Ala
545          550          555          560
Leu Val Ile Thr Phe Pro Val Asn Asn Tyr Tyr Asn Asp Thr Glu Lys
          565          570          575
Leu Gln Arg Ala Gln Ala Trp Glu Lys Glu Phe Ile Asn Phe Val Lys

```

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 Asn Tyr Lys Asn Pro Asn Leu Thr Ile Ser Phe Thr Ala Glu Arg Ser  
 595 600 605  
 Ile Glu Asp Glu Leu Asn Arg Glu Ser Asp Ser Asp Val Phe Thr Val  
 610 615 620  
 Val Ile Ser Tyr Ala Ile Met Phe Leu Tyr Ile Ser Leu Ala Leu Gly  
 625 630 635 640  
 His Ile Lys Ser Cys Arg Arg Leu Leu Val Asp Ser Lys Val Ser Leu  
 645 650 655  
 Gly Ile Ala Gly Ile Leu Ile Val Leu Ser Ser Val Ala Cys Ser Leu  
 660 665 670  
 Gly Val Phe Ser Tyr Ile Gly Leu Pro Leu Thr Leu Ile Val Ile Glu  
 675 680 685  
 Val Ile Pro Phe Leu Val Leu Ala Val Gly Val Asp Asn Ile Phe Ile  
 690 695 700  
 Leu Val Gln Ala Tyr Gln Arg Asp Glu Arg Leu Gln Gly Glu Thr Leu  
 705 710 715 720  
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 725 730 735  
 Leu Ser Ser Phe Ser Glu Thr Val Ala Phe Phe Leu Gly Ala Leu Ser  
 740 745 750  
 Val Met Pro Ala Val His Thr Phe Ser Leu Phe Ala Gly Leu Ala Val  
 755 760 765  
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 770 775 780  
 Leu Asp Ile Lys Arg Gln Glu Lys Asn Arg Leu Asp Ile Phe Cys Cys  
 785 790 795 800  
 Val Arg Gly Ala Glu Asp Gly Thr Ser Val Gln Ala Ser Glu Ser Cys  
 805 810 815  
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 Trp Met Arg Pro Ile Val Ile Ala Ile Phe Val Gly Val Leu Ser Phe  
 835 840 845  
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 Ser Met Pro Asp Asp Ser Tyr Met Val Asp Tyr Phe Lys Ser Ile Ser  
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 Gln Tyr Leu His Ala Gly Pro Pro Val Tyr Phe Val Leu Glu Glu Gly  
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 945 950 955 960  
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 980 985 990  
 Gly Asp Phe Met Arg Phe Leu Pro Met Phe Leu Ser Asp Asn Pro Asn  
 995 1000 1005  
 Pro Lys Cys Gly Lys Gly Gly His Ala Ala Tyr Ser Ser Ala Val Asn

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Tyr His Thr Val Leu Gln Thr Ser Ala Asp Phe Ile Asp Ala Leu Lys
1045      1050      1055
Lys Ala Arg Leu Ile Ala Ser Asn Val Thr Glu Thr Met Gly Ile Asn
1060      1065      1070
Gly Ser Ala Tyr Arg Val Phe Pro Tyr Ser Val Phe Tyr Val Phe Tyr
1075      1080      1085
Glu Gln Tyr Leu Thr Ile Ile Asp Asp Thr Ile Phe Asn Leu Gly Val
1090      1095      1100
Ser Leu Gly Ala Ile Phe Leu Val Thr Met Val Leu Leu Gly Cys Glu
1105      1110      1115      1120
Leu Trp Ser Ala Val Ile Met Cys Ala Thr Ile Ala Met Val Leu Val
1125      1130      1135
Asn Met Phe Gly Val Met Trp Leu Trp Gly Ile Ser Leu Asn Ala Val
1140      1145      1150
Ser Leu Val Asn Leu Val Met Ser Cys Gly Ile Ser Val Glu Phe Cys
1155      1160      1165
Ser His Ile Thr Arg Ala Phe Thr Val Ser Met Lys Gly Ser Arg Val
1170      1175      1180
Glu Arg Ala Glu Glu Ala Leu Ala His Met Gly Ser Ser Val Phe Ser
1185      1190      1195      1200
Gly Ile Thr Leu Thr Lys Phe Gly Gly Ile Val Val Leu Ala Phe Ala
1205      1210      1215
Lys Ser Gln Ile Phe Gln Ile Phe Tyr Phe Arg Met Tyr Leu Ala Met
1220      1225      1230
Val Leu Leu Gly Ala Thr His Gly Leu Ile Phe Leu Pro Val Leu Leu
1235      1240      1245
Ser Tyr Ile Gly Pro Ser Val Asn Lys Ala Lys Ser Cys Ala Thr Glu
1250      1255      1260
Glu Arg Tyr Lys Gly Thr Glu Arg Glu Arg Leu Leu Asn Phe
1265      1270      1275

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&lt;210&gt; 5495

&lt;211&gt; 2414

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5495

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<210> 5496

<211> 345

<212> PRT

<213> Homo sapiens

<400> 5496

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Met	Phe	Ile	Pro	Asn	Ser	Gln	Trp	Thr	Glu	Val	Ser	Trp	Phe	Leu	Gly	20	25	30	
Leu	Leu	Gly	Ser	Met	Ala	Leu	Ser	Asn	His	Tyr	Arg	Ser	Glu	Asp	Leu	35	40	45	
Leu	Asp	Val	Asp	Thr	Ala	Ala	Gly	Gly	Phe	Gln	Gln	Arg	Gln	Gly	Leu	50	55	60	
Lys	Tyr	Cys	Leu	Pro	Leu	Thr	Phe	Cys	Ile	His	Thr	Gly	Leu	Ser	Gln	65	70	75	80
Tyr	Ile	Ala	Val	Glu	Ala	Ala	Glu	Gly	Arg	Asn	Lys	Asn	Glu	Val	Phe	85	90	95	
Tyr	Gln	Cys	Pro	Asp	Gln	Met	Ala	Arg	Asn	Pro	Ala	Ala	Ile	Asp	Met	100	105	110	
Phe	Ile	Ile	Gly	Ala	Thr	Phe	Thr	Asp	Trp	Phe	Thr	Ser	Tyr	Val	Lys	115	120	125	
Asn	Val	Val	Ser	Gly	Gly	Phe	Pro	Ile	Ile	Arg	Asp	Gln	Ile	Phe	Arg	130	135	140	
Tyr	Val	His	Asp	Pro	Glu	Cys	Val	Ala	Thr	Thr	Gly	Asp	Ile	Thr	Val	145	150	155	160
Ser	Val	Ser	Thr	Ser	Phe	Leu	Pro	Glu	Leu	Ser	Ser	Val	His	Pro	Pro	165	170	175	
His	Tyr	Phe	Phe	Thr	Tyr	Arg	Ile	Arg	Ile	Glu	Met	Ser	Lys	Asp	Ala	180	185	190	
Leu	Pro	Glu	Lys	Ala	Cys	Gln	Leu	Asp	Ser	Arg	Tyr	Trp	Arg	Ile	Thr	195	200	205	
Asn	Ala	Lys	Gly	Asp	Val	Glu	Glu	Val	Gln	Gly	Pro	Gly	Val	Val	Gly	210	215	220	
Glu	Phe	Pro	Ile	Ile	Ser	Pro	Gly	Arg	Val	Tyr	Glu	Tyr	Thr	Ser	Cys	225	230	235	240
Thr	Thr	Phe	Ser	Thr	Thr	Ser	Gly	Tyr	Met	Glu	Gly	Tyr	Tyr	Thr	Phe	245	250	255	
His	Phe	Leu	Tyr	Phe	Lys	Asp	Lys	Ile	Phe	Asn	Val	Ala	Ile	Pro	Arg				

260                      265                      270  
 Phe His Met Ala Cys Pro Thr Phe Arg Val Ser Ile Ala Arg Leu Glu  
 275                      280                      285  
 Met Gly Pro Asp Glu Tyr Glu Glu Met Glu Glu Glu Glu Glu Glu  
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 305                      310                      315                      320  
 Glu Asp Asp Glu Glu Arg Arg Arg Arg Val Phe Asp Val Pro Ile  
 325                      330                      335  
 Arg Arg Arg Arg Cys Ser Arg Leu Phe  
 340                      345

&lt;210&gt; 5497

&lt;211&gt; 1056

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5497

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 300  
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 1056

&lt;210&gt; 5498

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5498

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Met Gly Gln Gly Ser Glu Ala Ala His Thr Pro Leu Lys Asn Glu Phe
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His Pro Pro Ala Phe Ala Pro Arg Thr Leu Arg Met Ala Gln Leu Val
      20             25             30
Ala Gln Leu Trp Trp Ser Ser Pro Phe Ile His Ser Pro Gly Glu Thr
      35             40             45
Asn Ile Pro His Thr Leu Thr Glu Pro His Ser Val Pro Gly Trp Cys
      50             55             60
Trp Asp Thr Leu Arg Arg His Gly Ala Gly Gln Gly His Pro Gly Met
65             70             75             80
Ala Arg Ser Gly Thr Gly Glu Gly Gln Arg Glu Gly Asp Ile Glu Arg
      85             90             95
Glu Glu Asp Glu Glu Glu Gly Asn Arg Ser Arg Lys Ser Arg Asp Ser
      100            105            110
Arg Ser Gln Val Lys Gly Leu Pro Leu His Ser Arg Glu Gln Arg Asp
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Pro Ser Ala Gly Ala Ser Glu Lys Ser Arg Asn Pro Ser Arg Met Gly
      130            135            140
Thr Trp Gly Val Asn Phe
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&lt;210&gt; 5499

&lt;211&gt; 1918

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5499

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600

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 ctgtatggcg aggacaccgt ggtgcatgag ggccaggatg ctggctatat cttegggctc  
 1560  
 cagagcctga tagacattgt cacagagata agtgaggaga gtggggagtg agcttgctag  
 1620  
 ctgctccagt acttgagagc gactctgtgt cccaggcaca gctgtgctgc gtcaggagg  
 1680  
 aagccagtat ggccagggtg tggctcctgc agcctggagc tgatgtgcag tggcctctgt  
 1740  
 gagccccagc ctgagccagt cccagctgtg cttggagtct ttatttattt taactatttc  
 1800  
 ttcaacattc cacatttgat gatgatacct ctttcttccc tgagtgtata tgttctaata  
 1860  
 caaatctttt tgtttattgt aaaaaaaaaa aaaaaaaaaa aaagaaaaac tcgaaaag  
 1918

&lt;210&gt; 5500

&lt;211&gt; 426

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5500

Met Ser Pro Ala Phe Arg Ala Met Asp Val Glu Pro Arg Ala Lys Gly  
 1 5 10 15  
 Val Leu Leu Glu Pro Phe Val His Gln Val Gly Gly His Ser Cys Val

```

      20      25      30
Leu Arg Phe Asn Glu Thr Thr Leu Cys Lys Pro Leu Val Pro Arg Glu
      35      40      45
His Gln Phe Tyr Glu Thr Leu Pro Ala Glu Met Arg Lys Phe Thr Pro
      50      55      60
Gln Tyr Lys Gly Val Val Ser Val Arg Phe Glu Glu Asp Glu Asp Arg
      65      70      75      80
Asn Leu Cys Leu Ile Ala Tyr Pro Leu Lys Gly Asp His Gly Ile Val
      85      90      95
Asp Ile Ala His Asn Ser Asp Cys Glu Pro Lys Ser Lys Leu Leu Arg
      100      105      110
Trp Thr Thr Asn Lys Lys His His Val Leu Glu Thr Glu Lys Thr Pro
      115      120      125
Lys Asp Trp Val Arg Gln His Arg Lys Glu Glu Lys Met Lys Ser His
      130      135      140
Lys Leu Glu Glu Glu Phe Glu Trp Leu Lys Lys Ser Glu Val Leu Tyr
      145      150      155      160
Tyr Thr Val Glu Lys Lys Gly Asn Ile Ser Ser Gln Leu Lys His Tyr
      165      170      175
Asn Pro Trp Ser Met Lys Cys His Gln Gln Gln Leu Gln Arg Met Lys
      180      185      190
Glu Asn Ala Lys His Arg Asn Gln Tyr Lys Phe Ile Leu Leu Glu Asn
      195      200      205
Leu Thr Ser Arg Tyr Glu Val Pro Cys Val Leu Asp Leu Lys Met Gly
      210      215      220
Thr Arg Gln His Gly Asp Ala Ser Glu Glu Lys Ala Ala Asn Gln
      225      230      235      240
Ile Arg Lys Cys Gln Gln Ser Thr Ser Ala Val Ile Gly Val Xaa Val
      245      250      255
Cys Gly Met Gln Val Tyr Gln Ala Gly Ser Gly Gln Leu Met Phe Met
      260      265      270
Asn Lys Tyr His Gly Arg Lys Leu Ser Val Gln Gly Phe Lys Glu Ala
      275      280      285
Leu Phe Gln Phe Phe His Asn Gly Arg Tyr Leu Arg Arg Glu Leu Leu
      290      295      300
Gly Pro Val Leu Lys Lys Leu Thr Glu Leu Lys Ala Val Leu Glu Arg
      305      310      315      320
Gln Glu Ser Tyr Arg Phe Tyr Ser Ser Ser Leu Leu Val Ile Tyr Asp
      325      330      335
Gly Lys Glu Arg Pro Glu Val Val Leu Asp Ser Asp Ala Glu Asp Leu
      340      345      350
Glu Asp Leu Ser Glu Glu Ser Ala Asp Glu Ser Ala Gly Ala Tyr Ala
      355      360      365
Tyr Lys Pro Ile Gly Ala Ser Ser Val Asp Val Arg Met Ile Asp Phe
      370      375      380
Ala His Thr Thr Cys Arg Leu Tyr Gly Glu Asp Thr Val Val His Glu
      385      390      395      400
Gly Gln Asp Ala Gly Tyr Ile Phe Gly Leu Gln Ser Leu Ile Asp Ile
      405      410      415
Val Thr Glu Ile Ser Glu Glu Ser Gly Glu
      420      425

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&lt;210&gt; 5501

&lt;211&gt; 568

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5501

attcggcacg aggtgagtcg gtggcaggaa cgtgggctct agactgtgca ttcaggctct  
 60  
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 120  
 tgaagcgggg acaaaacat gcagctcaga ggtccctgtg ggggctgggg gagctgccct  
 180  
 gcaggctctg gcacatgcac agcaggctcc ccatagcttt gtcaccacaa agggcactgt  
 240  
 tctattcaca gcacctcctg cttctgcctg gcaactgtgt ctccctgtgc tatatttaat  
 300  
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 360  
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 420  
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 480  
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 540  
 acctggcatg ctgcagccct ctgccggc  
 568

&lt;210&gt; 5502

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5502

Met	Ile	Leu	Gly	Lys	Arg	Leu	His	Leu	Asn	Phe	Arg	Tyr	Phe	Thr	Cys
1				5					10					15	
Glu	Ala	Gly	Thr	Lys	Pro	Cys	Ser	Ser	Glu	Val	Pro	Val	Gly	Ala	Gly
			20					25					30		
Gly	Ala	Ala	Leu	Gln	Val	Leu	Ala	His	Ala	Gln	Gln	Ala	Pro	His	Ser
		35				40					45				
Phe	Val	Thr	Thr	Lys	Gly	Thr	Val	Leu	Phe	Thr	Ala	Pro	Pro	Ala	Ser
	50					55				60					
Ala	Trp	Gln	Leu	Cys	Leu	Pro	Val	Leu	Tyr	Leu	Ile	Pro	Pro	Ala	Lys
65				70					75					80	
Leu	Ala	Arg	Gln	Gly	Pro	Ala	Leu	Lys	Glu	Ile	Ser	Leu	Pro	Asp	Pro
			85					90						95	
Trp	Thr	Trp	Lys	Trp	Arg	Leu	His	Val	Pro	Ala	Leu	Ala	Ala		
			100					105					110		

&lt;210&gt; 5503

&lt;211&gt; 1679

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5503

tgtctgggaa aagggaaactc acaaggggtg agtaccacca aattaggaga taccatgagc  
 60

taacgccgctc tcagaattgc ataaatttgt ctacattttt caaagaagtt gggttatctg  
120  
atttaatcct cacaatagtc aagctaggaa ggtaagtgtg gaattattac cccatttgat  
180  
aggtagacaa attaaagctt aagatcaaac cgtttgcaaa gcaggaagca gcacttcctc  
240  
ttggtccagt tcttccttct ccctgggtgct aaggtcagtg gatgttggtt ccccacaggc  
300  
cagaaagctg gagagaagcc cctggctgca ggacccgggg aggaggaact gctccggggc  
360  
tcagcccctc atgctcagga cactcagagt gaggaactgc caccctcctg caccatctca  
420  
ggagagaaga agccgccagc agtctctgga gaagccaccg gggctgatgc tgggagactg  
480  
tgcccgcccc ccgctccag ggctccccc aaagacagaa ctctagcccc ctccaggccc  
540  
cagactcagg gggaagattg ttccctccca gtgggagagg tgaagatagg aaagaggtcc  
600  
tattctccag ccccgggaa gcagaaaaag cctaagcca tgggtctggc cccaacatca  
660  
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720  
cggggggcct gccacctggc caatctcctc agtacattgg cgcagagcaa ccaaacaga  
780  
gaccacaagc agggggcccc ggaagtgacc tgccaaatta ggaagagac acgaacccta  
840  
taccgctcag atcagctgga ggagctagag aagatattcc aagaagacca ctatcctgac  
900  
agtgataaac gccgagagat tgcccagacg gtgggggtga cccccagcg catcatggta  
960  
aagggggccg gctcactggt ggaggggtg agtggcggag ggcccacat tgaaacactc  
1020  
gaattgcaga gtgagcgctc agcggtagcc tgggtgtggt tccagaatcg cggggccaag  
1080  
tgggcaaaaa tggagaaact gaatgggaaa gaaagcaagg acaatcctgc agccctggc  
1140  
cctgccagca gtcaatcgag ctctgcagct gagatcctac ctgctgtgcc catggagcca  
1200  
aagcctgacc ctttccctca ggagtcctc ctggatacct ttccagagcc ccccatgctg  
1260  
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1320  
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1380  
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1440  
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1500  
ctctagttat ttgggtgggg gtaggggggt gtagatggag agaagataga cacagagagg  
1560  
agagggttaa ctgagaggag cacagagtgg tacaggagat ggggatgaaa gggataaggg  
1620  
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1679

<210> 5504  
 <211> 392  
 <212> PRT  
 <213> Homo sapiens

<400> 5504  
 Gln Lys Ala Gly Glu Lys Pro Leu Ala Ala Gly Pro Gly Glu Glu Glu  
 1 5 10 15  
 Leu Leu Arg Gly Ser Ala Pro His Ala Gln Asp Thr Gln Ser Glu Glu  
 20 25 30  
 Leu Pro Pro Ser Cys Thr Ile Ser Gly Glu Lys Lys Pro Pro Ala Val  
 35 40 45  
 Ser Gly Glu Ala Thr Gly Ala Asp Ala Gly Arg Leu Cys Pro Pro Pro  
 50 55 60  
 Arg Ser Arg Ala Pro His Lys Asp Arg Thr Leu Ala Arg Ser Arg Pro  
 65 70 75 80  
 Gln Thr Gln Gly Glu Asp Cys Ser Leu Pro Val Gly Glu Val Lys Ile  
 85 90 95  
 Gly Lys Arg Ser Tyr Ser Pro Ala Pro Gly Lys Gln Lys Lys Pro Asn  
 100 105 110  
 Ala Met Gly Leu Ala Pro Thr Ser Ser Pro Gly Ala Pro Asn Ser Ala  
 115 120 125  
 Arg Ala Thr His Asn Pro Val Pro Cys Gly Ser Gly Arg Gly Pro Cys  
 130 135 140  
 His Leu Ala Asn Leu Leu Ser Thr Leu Ala Gln Ser Asn Gln Asn Arg  
 145 150 155 160  
 Asp His Lys Gln Gly Pro Pro Glu Val Thr Cys Gln Ile Arg Lys Lys  
 165 170 175  
 Thr Arg Thr Leu Tyr Arg Ser Asp Gln Leu Glu Glu Leu Glu Lys Ile  
 180 185 190  
 Phe Gln Glu Asp His Tyr Pro Asp Ser Asp Lys Arg Arg Glu Ile Ala  
 195 200 205  
 Gln Thr Val Gly Val Thr Pro Gln Arg Ile Met Val Lys Gly Ala Gly  
 210 215 220  
 Ser Leu Val Ala Gly Trp Ser Gly Gly Gly Pro Thr Ile Glu Thr Leu  
 225 230 235 240  
 Glu Leu Gln Ser Glu Arg Ser Ala Val Ala Trp Val Trp Phe Gln Asn  
 245 250 255  
 Arg Arg Ala Lys Trp Arg Lys Met Glu Lys Leu Asn Gly Lys Glu Ser  
 260 265 270  
 Lys Asp Asn Pro Ala Ala Pro Gly Pro Ala Ser Ser Gln Cys Ser Ser  
 275 280 285  
 Ala Ala Glu Ile Leu Pro Ala Val Pro Met Glu Pro Lys Pro Asp Pro  
 290 295 300  
 Phe Pro Gln Glu Ser Pro Leu Asp Thr Phe Pro Glu Pro Pro Met Leu  
 305 310 315 320  
 Leu Thr Ser Asp Gln Thr Leu Ala Pro Thr Gln Pro Ser Glu Gly Ala  
 325 330 335  
 Gln Arg Val Val Thr Pro Pro Leu Phe Ser Pro Pro Pro Val Arg Arg  
 340 345 350  
 Ala Asp Leu Pro Phe Pro Leu Gly Pro Val His Thr Pro Gln Leu Met  
 355 360 365  
 Pro Leu Leu Met Asp Val Ala Gly Ser Asp Ser Ser His Lys Asp Gly

370 375 380  
 Pro Cys Gly Ser Trp Gly Thr Arg  
 385 390

<210> 5505  
 <211> 1099  
 <212> DNA  
 <213> Homo sapiens

<400> 5505  
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 120  
 gagctgttca cgcacgtgcc cgcccgcag ctgctgctga actgccgcct ggtctgcagc  
 180  
 ctctggcggg acctcatcga cctcgtgacc ctctggaaac gcaagtgcct gcgagagggc  
 240  
 ttcatcactg aggactggga ccagcccgtg gccgactgga agatcttcta cttcttacgg  
 300  
 agcctgcaca ggaacctcct gcacaaccgc tgcgtgaag aggggttcga gttctggagc  
 360  
 ctggatgtga atggaggcga tgagtgaag gtggaggatc tctctcgaga ccagaggaag  
 420  
 gaattcccca atgaccaggt caagaaatac ttcgttactt catattacac ctgcctcaag  
 480  
 tcccgagtg tggacctcaa ggccgaaggg tattgggagg agctactaga cacattccgg  
 540  
 ccggacatcg tggttaagga ctggtttgct gccagagccg actgtggctg cacctaccaa  
 600  
 ctcaaagtgc agctcctgtc ggctgactac ttcgtgttgg cctccttcga gccagaccgc  
 660  
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 720  
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 780  
 gccggctggt acggcccag ggtcaccaac agcagcatca ccacggggcc cccgctgccc  
 840  
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 900  
 gggctgggct tgggaagggg aggtggaggc cagggtgtccc cagacctcta acccttgccc  
 960  
 ctacgagcct cttctttgtg gagcctetca gtgtgggcag ccctcgcatg ctggggtcgg  
 1020  
 gccagctctc cccgaaaggt cttgacctga atgatggccg gggaagcctg cgtgtgcccc  
 1080  
 tttcagagac ggagcacct  
 1099

<210> 5506  
 <211> 280  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 5506

Lys Leu Gly Arg Pro Ser Gly Ser Cys Arg Gly Gly Arg Ala Gln Leu  
 1 5 10 15  
 Gln Glu Gly Val Gln Lys Pro Gln Ala Met Ala Val Gly Asn Ile Asn  
 20 25 30  
 Glu Leu Pro Glu Asn Ile Leu Leu Glu Leu Phe Thr His Val Pro Ala  
 35 40 45  
 Arg Gln Leu Leu Leu Asn Cys Arg Leu Val Cys Ser Leu Trp Arg Asp  
 50 55 60  
 Leu Ile Asp Leu Val Thr Leu Trp Lys Arg Lys Cys Leu Arg Glu Gly  
 65 70 75 80  
 Phe Ile Thr Glu Asp Trp Asp Gln Pro Val Ala Asp Trp Lys Ile Phe  
 85 90 95  
 Tyr Phe Leu Arg Ser Leu His Arg Asn Leu Leu His Asn Pro Cys Ala  
 100 105 110  
 Glu Glu Gly Phe Glu Phe Trp Ser Leu Asp Val Asn Gly Gly Asp Glu  
 115 120 125  
 Trp Lys Val Glu Asp Leu Ser Arg Asp Gln Arg Lys Glu Phe Pro Asn  
 130 135 140  
 Asp Gln Val Lys Lys Tyr Phe Val Thr Ser Tyr Tyr Thr Cys Leu Lys  
 145 150 155 160  
 Ser Gln Val Val Asp Leu Lys Ala Glu Gly Tyr Trp Glu Glu Leu Leu  
 165 170 175  
 Asp Thr Phe Arg Pro Asp Ile Val Val Lys Asp Trp Phe Ala Ala Arg  
 180 185 190  
 Ala Asp Cys Gly Cys Thr Tyr Gln Leu Lys Val Gln Leu Leu Ser Ala  
 195 200 205  
 Asp Tyr Phe Val Leu Ala Ser Phe Glu Pro Asp Pro Ala Thr Ile Gln  
 210 215 220  
 Gln Lys Ser Asp Ala Lys Trp Arg Glu Val Ser His Thr Phe Ser Asn  
 225 230 235 240  
 Tyr Pro Pro Gly Val Arg Tyr Ile Trp Phe Gln His Gly Gly Val Asp  
 245 250 255  
 Thr His Tyr Trp Ala Gly Trp Tyr Gly Pro Arg Val Thr Asn Ser Ser  
 260 265 270  
 Ile Thr Ile Gly Pro Pro Leu Pro  
 275 280

&lt;210&gt; 5507

&lt;211&gt; 1658

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5507

nttagagaaa gccaaaggaat tgagttaaat ccaccagaga agatggctct tgatccttac  
 60  
 actgaactcc gaaaacagcc tcttcgtaag tatgtcaccc catcagactt tgatcaactc  
 120  
 aagcaatttc tcacctttga caaacaggtc cttegattct atgcaatctg ggatgataca  
 180  
 gacagcatgt atggtgaatg tcggacctac atcattcatt actatcttat ggatgatacg  
 240  
 gtggaaattc gagaggtcca cgaacggaat gatgggagag atcctttccc actcctaag  
 300

aaccgccagc gtgtgcccaa agttttggtg gaaaatgcaa agaacttccc tcagtgtgtg  
360  
ctagaaatct ctgaccaaga agtggtggaa tggatatctg ctaaagactt cattgttggg  
420  
aagtcactca ctatccttgg gagaactttc ttcatttatg attgtgatcc atttactcga  
480  
cgggtattaca aagagaagtt tggaatcact gatttaccac gtattgatgt gagcaagcgg  
540  
gaaccacctc cagtaaaaca ggagttgcct ccttataacg gttttggact agtggaagat  
600  
tctgctcaga attgttttgc tctcattcca aaagctccaa aaaaagacgt tattaaaatg  
660  
ctggtgaatg ataacaaggt gcttcgttat ttggctgtac tggaaatcccc catcccagaa  
720  
gacaaagacc gcagatttgt cttctcttac tttctagcta ccgacatgat cagtatcttt  
780  
gagcctcctg ttcgcaattc tggatcattt gggggcaagt accttggcag gactaaagtt  
840  
gttaaacat actctacagt ggacaaccct gtctactatg gcccagtgta cttcttcatt  
900  
ggtgctgtga ttgaagtgtt tggtcaccgg ttcacatcc ttgatacaga cgagtatgtt  
960  
ttgaaataca tggagagcaa cgtgcccag tattcaccag aagcactcgc gtcaattcag  
1020  
aaccatgtcc gaaagcgaga agcgcctgct ccagaagcag aaagcaagca aactgaaaag  
1080  
gatccaggcg tgcaggaatt ggaagcatta atagacacaa ttcagaagca actgaaagat  
1140  
cactcatgca aagacaacat tcgtgaggca tttcaaattt atgacaagga agcttcagga  
1200  
tatgtggaca gagacatgtt ctttaaaatc tgtgaatcgc ttaacgtccc agtggatgac  
1260  
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1320  
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1380  
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1440  
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1560  
ttttgtgtgt caaattgact tggccacagg gggcccaaat atttcttttc tttcttttta  
1620  
aaaaaataaa tttttttgga gatgggaaaa aaaaaaaa  
1658

&lt;210&gt; 5508

&lt;211&gt; 448

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5508

Xaa Leu Glu Ser Gln Gly Ile Glu Leu Asn Pro Pro Glu Lys Met Ala



```

1           5           10           15
Leu Asp Pro Tyr Thr Glu Leu Arg Lys Gln Pro Leu Arg Lys Tyr Val
20           25           30
Thr Pro Ser Asp Phe Asp Gln Leu Lys Gln Phe Leu Thr Phe Asp Lys
35           40           45
Gln Val Leu Arg Phe Tyr Ala Ile Trp Asp Asp Thr Asp Ser Met Tyr
50           55           60
Gly Glu Cys Arg Thr Tyr Ile Ile His Tyr Tyr Leu Met Asp Asp Thr
65           70           75           80
Val Glu Ile Arg Glu Val His Glu Arg Asn Asp Gly Arg Asp Pro Phe
85           90           95
Pro Leu Leu Met Asn Arg Gln Arg Val Pro Lys Val Leu Val Glu Asn
100          105          110
Ala Lys Asn Phe Pro Gln Cys Val Leu Glu Ile Ser Asp Gln Glu Val
115          120          125
Leu Glu Trp Tyr Thr Ala Lys Asp Phe Ile Val Gly Lys Ser Leu Thr
130          135          140
Ile Leu Gly Arg Thr Phe Phe Ile Tyr Asp Cys Asp Pro Phe Thr Arg
145          150          155          160
Arg Tyr Tyr Lys Glu Lys Phe Gly Ile Thr Asp Leu Pro Arg Ile Asp
165          170          175
Val Ser Lys Arg Glu Pro Pro Pro Val Lys Gln Glu Leu Pro Pro Tyr
180          185          190
Asn Gly Phe Gly Leu Val Glu Asp Ser Ala Gln Asn Cys Phe Ala Leu
195          200          205
Ile Pro Lys Ala Pro Lys Lys Asp Val Ile Lys Met Leu Val Asn Asp
210          215          220
Asn Lys Val Leu Arg Tyr Leu Ala Val Leu Glu Ser Pro Ile Pro Glu
225          230          235          240
Asp Lys Asp Arg Arg Phe Val Phe Ser Tyr Phe Leu Ala Thr Asp Met
245          250          255
Ile Ser Ile Phe Glu Pro Pro Val Arg Asn Ser Gly Ile Ile Gly Gly
260          265          270
Lys Tyr Leu Gly Arg Thr Lys Val Val Lys Pro Tyr Ser Thr Val Asp
275          280          285
Asn Pro Val Tyr Tyr Gly Pro Ser Asp Phe Phe Ile Gly Ala Val Ile
290          295          300
Glu Val Phe Gly His Arg Phe Ile Ile Leu Asp Thr Asp Glu Tyr Val
305          310          315          320
Leu Lys Tyr Met Glu Ser Asn Ala Ala Gln Tyr Ser Pro Glu Ala Leu
325          330          335
Ala Ser Ile Gln Asn His Val Arg Lys Arg Glu Ala Pro Ala Pro Glu
340          345          350
Ala Glu Ser Lys Gln Thr Glu Lys Asp Pro Gly Val Gln Glu Leu Glu
355          360          365
Ala Leu Ile Asp Thr Ile Gln Lys Gln Leu Lys Asp His Ser Cys Lys
370          375          380
Asp Asn Ile Arg Glu Ala Phe Gln Ile Tyr Asp Lys Glu Ala Ser Gly
385          390          395          400
Tyr Val Asp Arg Asp Met Phe Phe Lys Ile Cys Glu Ser Leu Asn Val
405          410          415
Pro Val Asp Asp Ser Leu Val Lys Glu Leu Ile Arg Met Cys Ser His
420          425          430
Gly Glu Gly Lys Ile Asn Tyr Tyr Asn Phe Val Arg Ala Phe Ser Asn

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435

440

445

&lt;210&gt; 5509

&lt;211&gt; 818

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5509

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120  
ctatgtgaga ggaagtaagt atacacagcg taagagggtg gataaccaag tcatagaaga  
180  
aatgtttgga gaacatggaa tcatgtgaac ttattatgtg gtaagtacag ataccaggg  
240  
ctgtcagtct caccatcctt ttctacacat gtggatgctt caggactcca gcctttgagg  
300  
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360  
attccagggtc ataactgaa taagaaaacg cctcctggag taaagccacc tgaagccat  
420  
gtgtgtggag aggtcgccgt gggctatcca tccactgaaa ggcacatcag agatcgccct  
480  
ggacgcaaac cctgtgaata tcaggaatgt agacagaagg catatacatg taagccatgt  
540  
gggaatgcct ttcgttttca ccactccttt cacatacacg aaaggcctca cagtggagaa  
600  
aacctctatg aatgttagga atttcagaaa acattcactt cccccccaaa ccttcaaaga  
660  
tgtgaaaatg catagtggag atggacctta caaatgcaag gtgggtagga aaacctttga  
720  
ctctcccaatg tcatttcgaa tacatggaag atctcattct ggagagaaac ccaatgtgtg  
780  
taggcactgt gggagcacct acaatcattt cagttttg  
818

&lt;210&gt; 5510

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5510

Met Trp Leu Ser Thr Ser Pro Tyr Arg Lys Gly Ser Gln Cys Gly Glu  
1 5 10 15  
Ala Phe Ser Gln Ile Pro Gly His Asn Leu Asn Lys Lys Thr Pro Pro  
20 25 30  
Gly Val Lys Pro Pro Glu Ser His Val Cys Gly Glu Val Gly Val Gly  
35 40 45  
Tyr Pro Ser Thr Glu Arg His Ile Arg Asp Arg Leu Gly Arg Lys Pro  
50 55 60  
Cys Glu Tyr Gln Glu Cys Arg Gln Lys Ala Tyr Thr Cys Lys Pro Cys  
65 70 75 80  
Gly Asn Ala Phe Arg Phe His His Ser Phe His Ile His Glu Arg Pro

	85	90	95
His Ser Gly Glu Asn Leu Tyr Glu Cys			
	100	105	
<210>	5511		
<211>	379		
<212>	DNA		
<213>	Homo sapiens		
<400>	5511		
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ctttccttgg	gaaaagaggg	catcgtctca	atcgcatagt
		cacacacatc	ccttaactca
120			
ctctgctgag	ttgctgagag	tctgtgttcc	tctctccact
		tataggatgg	gtcctcatct
180			
tcttgagctt	caagccccaa	ggcagagacc	tggctgtctc
		tcatgggagc	ctcagggata
240			
atgctgaatt	cctctatggc	agagatggga	ggagaggctc
		cacgctgggc	ctcctcagcc
300			
tccatcaggg	ctgaatcctg	gtcgggtgtca	catgctgctt
		cggccccagc	gtccctccca
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379			

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<210> 5512
<211> 101
<212> PRT
<213> Homo sapiens
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<400> 5512
Met Glu Ala Glu Glu Ala Gln Arg Gly Ala Ser Pro Pro Ile Ser Ala
 1          5          10          15
Ile Glu Glu Phe Ser Ile Ile Pro Glu Ala Pro Met Arg Ser Ser Gln
 20          25          30
Val Ser Ala Leu Gly Leu Glu Ala Gln Glu Asp Glu Asp Pro Ser Tyr
 35          40          45
Lys Trp Arg Glu Glu His Arg Leu Ser Ala Thr Gln Gln Ser Glu Leu
 50          55          60
Arg Asp Val Cys Asp Tyr Ala Ile Glu Thr Met Pro Ser Phe Pro Lys
 65          70          75
Glu Gly Ser Ala Asp Val Glu Pro Asn Gln Glu Ser Leu Val Ala Glu
 85          90          95
Ala Cys Asp Thr Pro
100

```

```
<210> 5513
<211> 837
<212> DNA
<213> Homo sapiens
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<400> 5513  
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aaggccacag ccgcggccct gggcagtttc ccggcaggtg gcccggccga gctgtcgctg  
120  
agactcgggg agccattgac catcgtctct gaggatggag actggtggac ggtgtgtct  
180  
gaagtctcag gcagagagta taacatcccc agcgtccacg tggccaaagt ctcccatggg  
240  
tggctgtatg agggcctgag caggagagaa gcagaggacc tgctgttgtt acctgggaac  
300  
cctggagggg ctttctcat ccgggagagc cagaccagga gaggtcttta ctctctgtca  
360  
gtccgcctca gccgcctgc atcctgggac cggatcagac actacaggat ccaactgcctt  
420  
gacaatggct ggctgtacat ctacccgcgc ctacacttcc cctcactcca ggccttggtg  
480  
gaccattact ctgagctggc ggatgacatc tgctgcctac tcaaggagcc ctgtgtcctg  
540  
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600  
ccactcaact ggaaagagct ggacagctcc ctctgtttt ctgaagctgc cacaggggag  
660  
gagtcctctt tcaagtgggg tctccgggag tcctcagct tctacatcag cctgaatgac  
720  
gaggctgtct ctttggatga tgcctaggcc caaaggagag gccaaaaggg aaaccaaggc  
780  
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837

&lt;210&gt; 5514

&lt;211&gt; 248

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5514

Xaa	Ser	Leu	Ser	Ser	Ser	Val	Gln	Gly	Gln	Gly	Pro	Val	Thr	Met	Glu
1			5					10					15		
Ala	Glu	Arg	Ser	Lys	Ala	Thr	Ala	Ala	Ala	Leu	Gly	Ser	Phe	Pro	Ala
			20				25						30		
Gly	Gly	Pro	Ala	Glu	Leu	Ser	Leu	Arg	Leu	Gly	Glu	Pro	Leu	Thr	Ile
		35				40						45			
Val	Ser	Glu	Asp	Gly	Asp	Trp	Trp	Thr	Val	Leu	Ser	Glu	Val	Ser	Gly
	50				55					60					
Arg	Glu	Tyr	Asn	Ile	Pro	Ser	Val	His	Val	Ala	Lys	Val	Ser	His	Gly
	65			70				75						80	
Trp	Leu	Tyr	Glu	Gly	Leu	Ser	Arg	Glu	Lys	Ala	Glu	Asp	Leu	Leu	Leu
			85				90						95		
Leu	Pro	Gly	Asn	Pro	Gly	Gly	Ala	Phe	Leu	Ile	Arg	Glu	Ser	Gln	Thr
			100				105						110		
Arg	Arg	Gly	Ser	Tyr	Ser	Leu	Ser	Val	Arg	Leu	Ser	Arg	Pro	Ala	Ser
		115				120						125			
Trp	Asp	Arg	Ile	Arg	His	Tyr	Arg	Ile	His	Cys	Leu	Asp	Asn	Gly	Trp
	130				135					140					
Leu	Tyr	Ile	Ser	Pro	Arg	Leu	Thr	Phe	Pro	Ser	Leu	Gln	Ala	Leu	Val
	145				150					155				160	
Asp	His	Tyr	Ser	Glu	Leu	Ala	Asp	Asp	Ile	Cys	Cys	Leu	Leu	Lys	Glu

```

      165      170      175
Pro Cys Val Leu Gln Arg Ala Gly Pro Leu Pro Gly Lys Asp Ile Pro
      180      185      190
Leu Pro Val Thr Val Gln Arg Thr Pro Leu Asn Trp Lys Glu Leu Asp
      195      200      205
Ser Ser Leu Leu Phe Ser Glu Ala Ala Thr Gly Glu Glu Ser Leu Leu
      210      215      220
Ser Glu Gly Leu Arg Glu Ser Leu Ser Phe Tyr Ile Ser Leu Asn Asp
      225      230      235      240
Glu Ala Val Ser Leu Asp Asp Ala
      245

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<210> 5515  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

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<400> 5515
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120
aagcttcagc tacaagccct tgagcaagag cacaagaagc tggctgcccgc ccttgaggaa
180
gagcgtggca agaacaagca ggtggtcctg atgctggtca aagagtgcga gcagctctca
240
agcaaagtca tagaggaggc ccagaagctc gaagacgtaa tggccaaaact ggcttcttct
300
ctttgtcacc agcacctgct tcatagtctc tctggagtgc caggaaacggg tcatatagat
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taaattctcc ataccgttcc tggataaata cctccttctc gcgagcccgc agggcctcga
420

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<210> 5516  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

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<400> 5516
Val Cys Thr Asn Pro Leu Ser Ile Leu Glu Ala Val Met Ala His Cys
1      5      10      15
Lys Lys Met Gln Glu Arg Met Ser Ala Gln Leu Ala Ala Ala Glu Ser
20     25     30
Arg Gln Lys Lys Leu Glu Met Glu Lys Leu Gln Leu Gln Ala Leu Glu
35     40     45
Gln Glu His Lys Lys Leu Ala Ala Arg Leu Glu Glu Glu Arg Gly Lys
50     55     60
Asn Lys Gln Val Val Leu Met Leu Val Lys Glu Cys Lys Gln Leu Ser
65     70     75     80
Ser Lys Val Ile Glu Glu Ala Gln Lys Leu Glu Asp Val Met Ala Lys
85     90     95
Leu Ala Ser Ser Leu Cys His Gln His Leu Leu His Ser Leu Ser Gly
100    105    110
Val Pro Gly Thr Gly His Ile Asp

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115

120

<210> 5517  
 <211> 804  
 <212> DNA  
 <213> Homo sapiens

<400> 5517  
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 120  
 atccgtgccca gcagtcctcca gggtcagaag caattcaaga ccctgatgat agctctccag  
 180  
 caaccaacac atgggtgacat ggtgattgtg ccaacttgtt gctcagttat atgcagggcc  
 240  
 agtgattgggt ttaagtgaag accatgggtg agatcatttg tctttgggtct aatagaattt  
 300  
 gagctagtag aatttgagtc tccagggaaa gagctacttg accaaattaa actagtagca  
 360  
 ggtagagcat gaatgacagc atattatacc atcaagatgt tcttagagca gtgtatggat  
 420  
 ggatcgattg tactgccatc agttgtgact gacgttgat tcaaggagaa agagaaactt  
 480  
 gtttagaaag cactttgaaa gttttttgag tacgggggtg ccctgtatca ccccgttatg  
 540  
 gttgaacttt ctccttcaaa attaccagac ttggcagcag tggcaaatga ttgggctaaa  
 600  
 agacttaate agacatattc tgggttcaag gctcctaata taatacctgg tgcaaacatt  
 660  
 atacttcac tcattcagat ggttgcattc tgccaggcat ccagtgggac tgggaatatg  
 720  
 gacacttgaa cattaacat cctgaagaat tttggaatga caggttaca gtgaacataa  
 780  
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 804

<210> 5518  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 5518  
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 Glu Leu Ser Ser Val Leu Tyr Cys Cys Asp Leu Leu Ile Gly Ile Gly  
 20 25 30  
 Ile Val Val Gly Ser Ser Asp Arg Ile Arg Ala Ser Ser Leu Gln Val  
 35 40 45  
 Gln Lys Gln Phe Lys Thr Leu Met Ile Ala Leu Gln Gln Pro Thr His  
 50 55 60  
 Gly Asp Met Val Ile Val Pro Thr Cys Cys Ser Val Ile Cys Arg Ala  
 65 70 75 80  
 Ser Asp Trp Phe Lys

85

<210> 5519  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 5519  
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 120  
 ccatgcgct cactacttac catgttctg cgggcattcc cctcccgaag ggagtctctg  
 180  
 aaaacaaaca cacacagaag ttggcgctgg gcaccacatt ctctcttga cctaaccatc  
 240  
 aggaatttgc tgtgccatct gttcataaaa cttagccagg cccagaaagc ttgtcccaac  
 300  
 cacatgctaa gagccaagca gatggaacag aagctcccc aagctgctgg ctcccactat  
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 401

<210> 5520  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 5520  
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 Trp His Ser Lys Phe Leu Met Val Arg Ser Arg Gly Glu Cys Gly Ala  
 20 25 30  
 Gln Arg Gln Leu Leu Cys Val Phe Val Phe Arg Asp Ser Leu Arg Glu  
 35 40 45  
 Gly Asn Ala Arg Arg Asn Met Val Ser Ser Glu Ala His Gly Cys Phe  
 50 55 60  
 Leu Arg Pro Ala Val Phe Tyr Ala Thr Tyr Pro Cys Thr Ser Tyr Ala  
 65 70 75 80  
 Lys Glu Thr Lys Pro Ser Ala Cys Leu Phe Pro Leu Leu Ile Ile Gly  
 85 90 95  
 Lys Trp Met Leu Trp  
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<210> 5521  
 <211> 2524  
 <212> DNA  
 <213> Homo sapiens

<400> 5521  
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 120

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180  
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240  
gtcatcgga aaggtactgt ccaagaagct ggaacattat tatccagcaa gaatgttogt  
300  
gtcaactggt tggacgagaa tggaaatgact cctctaagtc atgcagcata taaaggaaaa  
360  
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420  
catggatata cagccctcat gtttgctgca ctttctggta ataaagacat cacatgggta  
480  
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540  
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600  
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aagttggcag gcccgcctga caaaattatc accacaacga atcttcatcc tgtcaagatc  
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1320  
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1620  
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1740



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 1860  
 aggtgtggaa gagagatttt caggaagga aaaatttata gctacagagg gtagttagaa  
 1920  
 aaatcataac ttatatgtga ataaaataca tataagcagc atttacggta gtggcattct  
 1980  
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 2040  
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 2100  
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 2160  
 aaggcatatt gacggttctc tcagcgtatg cattaaaaa ggtacttctt gaaacttttg  
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 2520  
 aaaa  
 2524

&lt;210&gt; 5522

&lt;211&gt; 441

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5522

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 1 5 10 15  
 Leu Glu Val Ile Gly Lys Gly Thr Val Gln Glu Ala Gly Thr Leu Leu  
 20 25 30  
 Ser Ser Lys Asn Val Arg Val Asn Cys Leu Asp Glu Asn Gly Met Thr  
 35 40 45  
 Pro Leu Met His Ala Ala Tyr Lys Gly Lys Leu Asp Met Cys Lys Leu  
 50 55 60  
 Leu Leu Arg His Gly Ala Asp Val Asn Cys His Gln His Glu His Gly  
 65 70 75 80  
 Tyr Thr Ala Leu Met Phe Ala Ala Leu Ser Gly Asn Lys Asp Ile Thr  
 85 90 95  
 Trp Val Met Leu Glu Ala Gly Ala Glu Thr Asp Val Val Asn Ser Val  
 100 105 110  
 Gly Arg Thr Ala Ala Gln Met Ala Ala Phe Val Gly Gln His Asp Cys  
 115 120 125  
 Val Thr Ile Ile Asn Asn Phe Phe Pro Arg Glu Arg Leu Asp Tyr Tyr  
 130 135 140  
 Thr Lys Pro Gln Gly Leu Asp Lys Glu Pro Lys Leu Pro Pro Lys Leu

145                      150                      155                      160  
 Ala Gly Pro Leu His Lys Ile Ile Thr Thr Thr Asn Leu His Pro Val  
                                  165                      170                      175  
 Lys Ile Val Met Leu Val Asn Glu Asn Pro Leu Leu Thr Glu Glu Ala  
                                  180                      185                      190  
 Ala Leu Asn Lys Cys Tyr Arg Val Met Asp Leu Ile Cys Glu Lys Cys  
                                  195                      200                      205  
 Met Lys Gln Arg Asp Met Asn Glu Val Leu Ala Met Lys Met His Tyr  
                                  210                      215                      220  
 Ile Ser Cys Ile Phe Gln Lys Cys Ile Asn Phe Leu Lys Asp Gly Glu  
 225                                   230                                   235                                   240  
 Asn Lys Leu Asp Thr Leu Ile Lys Ser Leu Leu Lys Gly Arg Ala Ser  
                                  245                                   250                                   255  
 Asp Gly Phe Pro Val Tyr Gln Glu Lys Ile Ile Arg Glu Ser Ile Arg  
                                  260                                   265                                   270  
 Lys Phe Pro Tyr Cys Glu Ala Thr Leu Leu Gln Gln Leu Val Arg Ser  
                                  275                                   280                                   285  
 Ile Ala Pro Val Glu Ile Gly Ser Asp Pro Thr Ala Phe Ser Val Leu  
 290                                   295                                   300  
 Thr Gln Ala Ile Thr Gly Gln Val Gly Phe Val Asp Val Glu Phe Cys  
 305                                   310                                   315                                   320  
 Thr Thr Cys Gly Glu Lys Gly Ala Ser Lys Arg Cys Ser Val Cys Lys  
                                  325                                   330                                   335  
 Met Val Ile Tyr Cys Asp Gln Thr Cys Gln Lys Thr His Trp Phe Thr  
                                  340                                   345                                   350  
 His Lys Lys Ile Cys Lys Asn Leu Lys Asp Ile Tyr Glu Lys Gln Gln  
                                  355                                   360                                   365  
 Leu Glu Ala Ala Lys Glu Lys Arg Gln Glu Glu Asn His Gly Lys Leu  
 370                                   375                                   380  
 Asp Val Asn Ser Asn Cys Val Asn Glu Glu Gln Pro Glu Ala Glu Val  
 385                                   390                                   395                                   400  
 Gly Ile Ser Gln Arg Asp Ser Asn Pro Glu Asp Ser Gly Glu Gly Lys  
                                  405                                   410                                   415  
 Lys Glu Ser Leu Glu Ser Glu Ala Glu Leu Glu Gly Leu Gln Asp Ala  
                                  420                                   425                                   430  
 Pro Ala Gly Pro Gln Val Ser Glu Glu  
                                  435                                   440

<210> 5523  
 <211> 6190  
 <212> DNA  
 <213> Homo sapiens

<400> 5523  
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 300

agtgaacagc aagatcgaaa cagagtttct gaagaactta tcatggttgt ccaagaaatg  
360  
aaaaaatact tcccctcgga gagacgcaat aaaccaagca ctctagatgc cctcaactat  
420  
gctctccgct gtgtccacag cgttcaagca aacagtgagt tttccagat tctcagtcag  
480  
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600  
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960  
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1140  
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1200  
gactacatca tactggattc cagttggtcc agctttgtga atccctggag ccggaagatt  
1260  
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1320  
accaaaatta aaaagatgaa cgataatgac aaagacataa cagaattaca agaacaaatt  
1380  
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1440  
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1500  
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aaaattaaaa atctgggtca gcagctctac attgagtcaa tgaccaaatc atcattcaag  
1620  
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1680  
ttccaccaa cactgaaaaa caatagtgtg tacactgagc cctgtgagga tttgaggaac  
1740  
gatgagcaca gccatccta tcaacagatc aactgtatcg acagtgtcat cagatacctg  
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1860  
tcctctcag aagaagacaa acagaaccac aaggcagatg atgtccaagc cttacaaggt  
1920

aacaagaatg cccctcagaa aatgccaaca aatggacggt ccatagacac aggaggagga  
1980  
gctccacaga tcctgtccac ggcgatgctg agcttggggg cgggcataag ccaatgcggt  
2040  
tacagcagca ccattgtcca tgccccaccc ccagagacag ccagggatgc taccctcttc  
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2160  
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2220  
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2280  
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<210> 5524

<211> 1193

<212> PRT

<213> Homo sapiens

<400> 5524

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		20					25					30			
Leu	Gln	Arg	Lys	Leu	Ala	Asp	Ser	Ser	His	Ser	Glu	Gln	Gln	Asp	Arg
		35				40					45				
Asn	Arg	Val	Ser	Glu	Glu	Leu	Ile	Met	Val	Val	Gln	Glu	Met	Lys	Lys
		50				55					60				
Tyr	Phe	Pro	Ser	Glu	Arg	Arg	Asn	Lys	Pro	Ser	Thr	Leu	Asp	Ala	Leu
		65				70				75				80	
Asn	Tyr	Ala	Leu	Arg	Cys	Val	His	Ser	Val	Gln	Ala	Asn	Ser	Glu	Phe

	85		90		95										
Phe	Gln	Ile	Leu	Ser	Gln	Asn	Gly	Ala	Pro	Gln	Ala	Asp	Val	Ser	Met
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Tyr	Ser	Leu	Glu	Glu	Leu	Ala	Thr	Ile	Ala	Ser	Glu	His	Thr	Ser	Lys
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Asn	Thr	Asp	Thr	Phe	Val	Ala	Val	Phe	Ser	Phe	Leu	Ser	Gly	Arg	Leu
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Val	His	Ile	Ser	Glu	Gln	Ala	Ala	Leu	Ile	Leu	Asn	Arg	Lys	Lys	Asp
	145						150				155				160
Val	Leu	Ala	Ser	Ser	His	Phe	Val	Asp	Leu	Leu	Ala	Pro	Gln	Asp	Met
			165					170						175	
Arg	Val	Phe	Tyr	Ala	His	Thr	Ala	Arg	Ala	Gln	Leu	Pro	Phe	Trp	Asn
			180					185					190		
Asn	Trp	Thr	Gln	Arg	Ala	Ala	Arg	Tyr	Glu	Cys	Ala	Pro	Val	Lys	Pro
			195					200					205		
Phe	Phe	Cys	Arg	Ile	Arg	Gly	Gly	Glu	Asp	Arg	Lys	Gln	Glu	Lys	Cys
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His	Ser	Pro	Phe	Arg	Ile	Ile	Pro	Tyr	Leu	Ile	His	Val	His	His	Pro
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Ala	Gln	Pro	Glu	Leu	Glu	Ser	Glu	Pro	Cys	Cys	Leu	Thr	Val	Val	Glu
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Thr	Ser	Ile	Leu	Ser	Tyr	Leu	His	Pro	Glu	Asp	Arg	Ser	Leu	Met	Val
	305				310					315					320
Ala	Ile	His	Gln	Lys	Gly	His	Pro	Pro	Phe	Glu	His	Ser	Pro	Ile	Arg
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Phe	Cys	Thr	Gln	Asn	Gly	Asp	Tyr	Ile	Ile	Leu	Asp	Ser	Ser	Trp	Ser
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Ser	Phe	Val	Asn	Pro	Trp	Ser	Arg	Lys	Ile	Ser	Phe	Ile	Ile	Gly	Arg
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His	Lys	Val	Arg	Thr	Ser	Pro	Leu	Asn	Glu	Asp	Val	Phe	Ala	Thr	Lys
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Gln	Ile	Tyr	Lys	Leu	Leu	Leu	Gln	Pro	Val	His	Val	Ser	Val	Ser	Ser
			405						410					415	
Gly	Tyr	Gly	Ser	Leu	Gly	Ser	Ser	Gly	Ser	Gln	Glu	Gln	Leu	Val	Ser
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Ile	Ala	Ser	Ser	Ser	Glu	Ala	Ser	Gly	His	Arg	Val	Glu	Glu	Thr	Lys
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Ala	Glu	Gln	Met	Thr	Leu	Gln	Gln	Val	Tyr	Ala	Ser	Val	Asn	Lys	Ile
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Lys	Asn	Leu	Gly	Gln	Gln	Leu	Tyr	Ile	Glu	Ser	Met	Thr	Lys	Ser	Ser
	465				470					475					480
Phe	Lys	Pro	Val	Thr	Gly	Thr	Arg	Thr	Glu	Pro	Asn	Gly	Gly	Gly	Glu
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Cys	Lys	Thr	Phe	Thr	Ser	Phe	His	Gln	Thr	Leu	Lys	Asn	Asn	Ser	Val
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 Thr Ser Ser Ser Ser Glu Asp Lys Gln Asn His Lys Ala Asp Asp  
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 Thr Ala Met Leu Ser Leu Gly Ser Gly Ile Ser Gln Cys Gly Tyr Ser  
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 His Thr Gln Lys Glu Glu Gln Asn Tyr Val Asp Lys Phe Arg Glu Lys  
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 Glu Pro Pro Asp Ser Ser Ser Ser Asn Thr Gly Ser Gly Pro Arg Arg  
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 Gly Ala His Gln Asn Ala Gln Pro Cys Cys Pro Ser Ala Ala Ser Ser  
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 Pro His Thr Ser Ser Pro Thr Phe Pro Pro Ala Ala Met Val Pro Ser  
 770 775 780  
 Gln Ala Pro Tyr Leu Val Pro Ala Phe Pro Leu Pro Ala Ala Thr Ser  
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 Pro Gly Arg Glu Tyr Ala Ala Pro Gly Thr Ala Pro Glu Gly Leu His  
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 Pro Tyr Leu Asp Thr Phe Met Thr Val Phe Leu Pro Asp Pro Pro Val  
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 Lys Trp Glu Ala Gln Ser Glu Gly His Pro Phe Ile Thr Ser Arg Ser  
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 Ser Ser Pro Leu Gln Leu Asn Leu Leu Gln Glu Glu Met Pro Arg Pro  
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 Ser Glu Ser Pro Asp Gln Met Arg Arg Asn Thr Cys Pro Gln Thr Glu  
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Tyr Gln Cys Val Thr Gly Asn Asn Gly Ser Glu Ser Ser Pro Ala Thr  
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 Thr Gly Ala Leu Ser Thr Gly Ser Pro Pro Arg Glu Asn Pro Ser His  
 965 970 975  
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 980 985 990  
 Ser His Pro Thr Ala Ser Ala Leu Ser Thr Gly Ser Pro Pro Met Lys  
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&lt;210&gt; 5525

&lt;211&gt; 761

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5525

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<210> 5526

<211> 102

<212> PRT

<213> Homo sapiens

<400> 5526

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		20					25					30			
Asn	Phe	Thr	Leu	Leu	Ala	Ser	Leu	Gly	Leu	Ala	Ser	Ser	Lys	Thr	His
		35					40					45			
Glu	Ile	Thr	Gln	Leu	Glu	Ser	Trp	Glu	Glu	Pro	Phe	Met	Pro	Ala	Trp
		50				55					60				
Glu	Val	Val	Thr	Ser	Ala	Ile	Pro	Arg	Glu	Thr	Leu	Arg	Met	Ala	Phe
		65			70				75					80	
Met	Arg	Glu	Leu	Ala	Ile	Glu	His	His	Ser	Ser	Lys	Tyr	Ala	His	Trp
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Arg	Gln	Asp	Glu	Asn	Ser										
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<210> 5527

<211> 728

<212> DNA

<213> Homo sapiens

<400> 5527

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 120  
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<210> 5528

<211> 176

<212> PRT

<213> Homo sapiens

<400> 5528

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				20				25					30		
Val	Thr	Gly	Leu	Lys	Leu	Ser	Gln	Asp	Leu	Asp	Asp	Leu	Ala	Ile	Leu
				35			40					45			
Tyr	Leu	Ala	Thr	Val	Gln	Ala	Ile	Ala	Leu	Gly	Thr	Arg	Phe	Ile	Ile
	50				55					60					
Glu	Ala	Met	Glu	Ala	Ala	Gly	His	Ser	Ile	Ser	Thr	Leu	Phe	Leu	Cys
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Gly	Gly	Leu	Ser	Lys	Asn	Pro	Leu	Phe	Val	Gln	Met	His	Ala	Asp	Ile
				85				90					95		
Thr	Gly	Met	Pro	Val	Val	Leu	Ser	Gln	Glu	Val	Glu	Ser	Val	Leu	Val
			100					105					110		
Gly	Ala	Ala	Val	Leu	Gly	Ala	Cys	Ala	Ser	Gly	Asp	Phe	Ala	Ser	Val
			115				120					125			
Gln	Glu	Ala	Met	Ala	Lys	Met	Ser	Lys	Val	Gly	Lys	Val	Val	Phe	Pro
	130				135					140					
Arg	Leu	Gln	Asp	Lys	Lys	Tyr	Tyr	Asp	Lys	Lys	Tyr	Gln	Val	Phe	Leu
145				150					155				160		
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<210> 5529

<211> 2602

<212> DNA

<213> Homo sapiens

<400> 5529

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 120  
 actcgagtcc agcggcctat cgtcaggctt ttgagttgcc caggaactgt ggccaaagac  
 180

cttaggagag acgagcagcc ttcagggagc gtggagacag gttttgaaga caagattccc  
240  
aaaaggagat tctctgagat gcaaaatgaa agacgagaac aggcacagcg gactgtttta  
300  
atacattgcc cagagaaaat cagtgaaaac aagtttttta aatattttatc ccaatttgga  
360  
cctattaata atcattttctt ctatgaaagc tttgggtctct atgctgtcgt agaattttgc  
420  
caaaaggaaa gcataggttc actgcagaat gggactcata ctccaagcac ggccatggag  
480  
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540  
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660  
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720  
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780  
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840  
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&lt;210&gt; 5530

&lt;211&gt; 603

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5530

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Ile Lys Pro Ser Gln Asn Thr Glu Thr Leu Glu Leu Leu Lys Glu
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Phe Phe Glu Tyr Phe Gly Asn Phe Ala Phe Asp Lys Asn Ser Ile Asn
465          470          475          480
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Gln Ser Gln Leu Gln Lys Phe Val Asp Leu Ala Arg Glu Ser Ala Trp
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Ile Leu Gln Gln Glu Asp Thr Asp Arg Pro Ser Ile Ser Ser Asn Arg
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Pro Trp Gly Leu Val Ser Leu Leu Leu Pro Ser Ala Pro Asn Arg Lys
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Ser Phe Thr Lys Lys Lys Ser Asn Lys Phe Ala Ile Glu Thr Val Lys
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<211> 593

<212> PRT

<213> Homo sapiens

<400> 5532

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Glu Asn Gly Gln Arg Lys Tyr Gly Gly Pro Pro Gly Trp Glu Gly  
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Pro His Pro Gln Arg Gly Cys Glu Val Phe Val Gly Lys Ile Pro Arg  
65 70 75 80  
Asp Val Tyr Glu Asp Glu Leu Val Pro Val Phe Glu Ala Val Gly Arg  
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Ile Tyr Glu Leu Arg Leu Met Met Asp Phe Asp Gly Lys Asn Arg Gly  
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Tyr Ala Phe Val Met Tyr Cys His Lys His Glu Ala Lys Arg Ala Val  
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130 135 140  
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Ala Glu Ala Ala Gln Gln Pro Ser Tyr Val Tyr Ser Cys Asp Pro Tyr

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      385      390      395      400
Tyr Ser Ala Gly Arg Gly Ile Tyr Ser Arg Tyr His Glu Gly Lys Gly
      405      410      415
Lys Gln Gln Glu Lys Gly Tyr Glu Leu Val Pro Asn Leu Glu Ile Pro
      420      425      430
Thr Val Asn Pro Val Ala Ile Lys Pro Gly Thr Val Ala Ile Pro Ala
      435      440      445
Ile Gly Ala Gln Tyr Ser Met Phe Pro Ala Ala Pro Ala Pro Lys Met
      450      455      460
Ile Glu Asp Gly Lys Ile His Thr Val Glu His Met Ile Ser Pro Ile
      465      470      475      480
Ala Val Gln Pro Asp Pro Ala Ser Ala Ala Ala Ala Ala Ala Ala
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Ala Ala Ala Ala Ala Ala Val Ile Pro Thr Val Ser Thr Pro Pro Pro
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Phe Gln Gly Arg Pro Ile Thr Pro Val Tyr Thr Val Ala Pro Asn Val
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Gln Arg Ile Pro Thr Ala Gly Ile Tyr Gly Ala Ser Tyr Val Pro Phe
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Ala Ala Pro Ala Thr Ala Thr Ile Ala Thr Leu Gln Lys Asn Ala Ala
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 <213> Homo sapiens

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 Leu Ala Ser Leu Ser Ala Glu Glu Leu Lys Glu Leu Glu Arg Glu Leu  
 50 55 60  
 Glu Asp Ile Glu Pro Asp Arg Asn Leu Pro Val Gly Leu Arg Gln Lys  
 65 70 75 80  
 Ser Leu Thr Glu Lys Thr Pro Thr Gly Thr Phe Ser Arg Glu Ala Leu  
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 Met Ala Tyr Trp Glu Lys Glu Ser Gln Lys Leu Leu Glu Lys Glu Arg  
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 Leu Gly Glu Cys Gly Lys Val Ala Glu Asp Lys Glu Glu Ser Glu Glu  
 115 120 125  
 Glu Leu Ile Phe Thr Glu Ser Asn Ser Glu Val Ser Glu Glu Val Tyr  
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&lt;210&gt; 5536

&lt;211&gt; 306

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5536

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Arg Glu Glu Asp Asp Glu Leu Leu Gly Asn Asp Asp Ser Asp Lys Thr
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Glu Leu Leu Ala Gly Gln Lys Lys Ser Ser Pro Phe Trp Thr Phe Glu
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Tyr Tyr Gln Thr Phe Phe Asp Val Asp Thr Tyr Gln Val Phe Asp Arg
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&lt;210&gt; 5537

&lt;211&gt; 2881

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5537

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&lt;210&gt; 5538

&lt;211&gt; 352

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5538

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Asn Pro Val Val Met Lys Asp Gly Lys Trp Val Val Gln Lys Tyr Ile
      100              105              110
Glu Arg Pro Leu Leu Ile Phe Gly Thr Lys Phe Asp Leu Arg Gln Trp
      115              120              125
Phe Leu Val Thr Asp Trp Asn Pro Leu Thr Val Trp Phe Tyr Arg Asp
      130              135              140
Ser Tyr Ile Arg Phe Ser Thr Gln Pro Phe Ser Leu Lys Asn Leu Asp
      145              150              155              160
Asn Ser Val His Leu Cys Asn Asn Ser Ile Gln Lys His Leu Glu Asn
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Ser Cys His Arg His Pro Leu Leu Pro Pro Asp Asn Met Trp Ser Ser
      180              185              190
Gln Arg Phe Gln Ala His Leu Gln Glu Met Gly Ala Pro Asn Ala Trp
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Lys Gln Pro Val Thr Thr Ser Pro Ala Ser Thr Pro Arg Pro Ser Cys
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Thr Ala Ser Trp Trp Ala Leu Arg Pro Cys Arg Pro Gln Ala Arg Pro
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&lt;210&gt; 5539

&lt;211&gt; 1887

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5539

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Ala Pro Trp Cys Ser Val Ser Ser Gly Pro Ser Arg Tyr Val Leu Gly
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Met Gln Glu Leu Phe Arg Gly His Ser Lys Thr Arg Glu Phe Leu Ala
 65           70           75           80
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100           105           110
Arg Thr Gly Trp Ser Lys Lys Thr Ile Ile Gly Asp Met Gly Ile Xaa
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Val Asp Gln Leu Cys Trp His Pro Ser Asn Pro Asp Leu Phe Val Thr
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Thr Phe Ile Asp Ala Lys Thr His Arg Ser Lys Ala Glu Glu Gln Phe
195           200           205
Lys Phe Glu Val Asn Glu Ile Ser Trp Asn Asn Asp Asn Asn Met Phe
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Phe Leu Thr Asn Gly Asn Gly Cys Ile Asn Ile Leu Ser Tyr Pro Glu
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Leu Lys Pro Val Gln Ser Ile Asn Ala His Pro Ser Asn Cys Ile Cys
245           250           255
Ile Lys Phe Asp Pro Met Gly Lys Tyr Phe Ala Thr Gly Ser Ala Asp
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290           295           300
Gly Lys Met Leu Ala Ser Ala Ser Glu Asp His Phe Ile Asp Ile Ala
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Thr Phe Thr Val Ala Trp His Pro Lys Arg Pro Leu Leu Ala Phe Ala
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370

375

&lt;210&gt; 5541

&lt;211&gt; 1854

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5541

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 Ala Lys Ser His Ser Glu Phe Leu Lys Lys Ser Thr Phe Ala Arg Leu  
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 Pro Pro Tyr Arg Tyr Arg Phe Arg Arg Arg Ser Ser Arg Ser Thr  
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Lys	Ile	Thr	Met	Gly	Thr	Leu	Leu	Asn	Ser	Asp	Arg	Asp	His	Ala	Phe		
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Leu	Gln	Phe	His	Asn	Ser	Thr	Pro	Lys	Glu	Phe	Lys	Glu	Ser	Leu	His		
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<210> 5544

<211> 1141

<212> PRT

<213> Homo sapiens

<400> 5544

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      805              810              815
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      820              825              830
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Gly Lys Val Leu Ile Val Asp Trp Asp Ile His His Gly Asn Gly Thr

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 <212> DNA  
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 <212> PRT  
 <213> Homo sapiens

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 <212> DNA  
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<211> 167

<212> PRT

<213> Homo sapiens

<400> 5548

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Arg	His	Leu	Ala	Asn	Met	Met	Gly	Glu	Asp	Pro	Glu	Thr	Phe	Thr	Gln
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 <212> DNA  
 <213> Homo sapiens

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<210> 5550

<211> 242

<212> PRT

<213> Homo sapiens

<400> 5550

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Glu	Tyr	Tyr	Arg	Lys	Pro	Val	Glu	Glu	Leu	Thr	Glu	Glu	Glu	Lys	Tyr
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Lys	Thr	Ser	Ser	Val	Phe	Glu	Asp	Pro	Val	Ile	Ser	Lys	Phe	Thr	Asn
			85						90				95		
Met	Met	Met	Ile	Gly	Gly	Asn	Lys	Val	Leu	Ala	Arg	Ser	Leu	Met	Ile
			100					105					110		
Gln	Thr	Leu	Glu	Ala	Val	Lys	Arg	Lys	Gln	Phe	Glu	Lys	Tyr	His	Ala
		115					120					125			
Ala	Ser	Ala	Glu	Glu	Gln	Ala	Thr	Ile	Glu	Arg	Asn	Pro	Tyr	Thr	Ile
		130				135					140				
Phe	His	Gln	Ala	Leu	Lys	Asn	Cys	Glu	Pro	Met	Ile	Gly	Leu	Val	Pro
			145			150				155				160	
Ile	Leu	Lys	Gly	Gly	Arg	Phe	Tyr	Gln	Val	Pro	Val	Pro	Leu	Pro	Asp
			165					170					175		
Arg	Arg	Arg	Arg	Phe	Leu	Ala	Met	Lys	Trp	Met	Ile	Thr	Glu	Cys	Arg
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Asp	Lys	Lys	His	Gln	Arg	Thr	Leu	Met	Pro	Glu	Lys	Leu	Ser	His	Lys

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Leu	Leu Glu Ala Phe His Asn Gln Gly Pro Val Ile Lys Arg Lys His				
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Asp	Leu His Lys Met Ala Glu Ala Asn Arg Ala Leu Ala His Tyr Arg				
	225		230		235
					240
Trp	Trp				

&lt;210&gt; 5551

&lt;211&gt; 1689

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5551

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<210> 5552

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5552

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			20					25					30		
Tyr	Leu	Leu	Asp	Pro	Tyr	Val	Asn	Leu	Ala	Pro	Gly	Cys	Arg	Ser	Leu
	35					40					45				
Phe	Ser	Val	Ile	Val	Arg	Val	Val	Gly	Asp	Leu	Met	Leu	Arg	Ile	Gln
	50					55					60				
Arg	Ile	Gln	Asp	Phe	Thr	Pro	Lys	Leu	Leu	Leu	Val	Arg	Lys	Arg	Leu
	65				70				75					80	
Leu	Gly	Leu	Glu	Pro	Glu	Gly	Pro	Ile	Ser	Asp	Leu	Glu	Pro	Val	Glu
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<210> 5553

<211> 274

<212> DNA

<213> Homo sapiens

<400> 5553

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<212> PRT  
<213> Homo sapiens

<400> 5554  
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35 40 45  
Gly Pro Ala Thr Ala Pro Ala Val Val Leu Ser His Tyr Arg Gly Cys  
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<211> 414  
<212> DNA  
<213> Homo sapiens

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<210> 5556  
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<212> PRT  
<213> Homo sapiens

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Glu Ser Gln Gly Cys Asp Ser Arg Arg Asp Ser Cys Glu Gly Pro Gly

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Gln	Ala	Lys	Leu	Glu	Asp	Ser	Pro	Asp	Leu	Arg	Gly	Ser	Thr	Arg	Ser
50					55					60					
Arg	Cys	Leu	Leu	Asp	Leu	Ser	His	Ser	Ala	His	Pro	Asn	Leu	Asn	Pro
65					70					75					
Ala	Pro	Gly	Pro	Thr	Pro	Val	Pro	Trp	Leu	Glu	Thr	Gly	Ala	Ser	Ala
85					90					95					
Gln	Leu	Phe	Pro	Phe	Ser	His	Ser	Leu	Ser	Ala	Ala	Cys	Arg	Val	His
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<211> 1970
<212> DNA
<213> Homo sapiens
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1080

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&lt;210&gt; 5558

&lt;211&gt; 360

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5558

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 20 25 30  
 Ser Val Pro Arg Glu Pro Ile Asp Arg Lys Arg Leu Lys Lys Asp Val  
 35 40 45  
 Glu Pro Ser Cys Ser Gly Ser Ser Leu Gly Pro Asp Lys Gly Leu Ala  
 50 55 60  
 Gln Ser Pro Pro Ser Ser Ser Leu Thr Ala Thr Arg Gln Lys Pro Ser  
 65 70 75 80  
 Gln Ser Pro Ser Ala Pro Pro Ala Asp Val Thr Pro Lys Pro Ala Thr  
 85 90 95  
 Glu Ala Val Gln Ser Glu His Ser Asp Ala Ser Pro Met Ser Ile Asn  
 100 105 110  
 Glu Val Ile Leu Ser Ala Ser Gly Ala Cys Lys Leu Ile Asp Ser Leu  
 115 120 125  
 His Ser Tyr Cys Phe Ser Ser Arg Gln Asn Lys Ser Gln Val Cys Cys

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145              150              155              160
Gln Arg Val Ser Arg Ser Asp Ser Gln Val Arg Lys Leu Gln Glu Lys
      165              170              175
Leu Asp Glu Leu Arg Arg Val Ser Val Pro Tyr Pro Ser Ser Leu Leu
      180              185              190
Ser Pro Ser Arg Glu Pro Pro Lys Met Asn Pro Val Val Glu Pro Leu
      195              200              205
Ser Trp Met Leu Gly Thr Trp Leu Ser Asp Pro Pro Gly Ala Gly Thr
      210              215              220
Tyr Pro Thr Leu Gln Pro Phe Gln Tyr Leu Glu Glu Val His Ile Ser
225              230              235              240
His Val Gly Gln Pro Met Leu Asn Phe Ser Phe Asn Ser Phe His Pro
      245              250              255
Asp Thr Arg Lys Pro Met His Arg Glu Cys Gly Phe Ile Arg Leu Lys
      260              265              270
Pro Asp Thr Asn Lys Val Ala Phe Val Ser Ala Gln Asn Thr Gly Val
      275              280              285
Val Glu Val Glu Glu Gly Glu Val Asn Gly Gln Glu Leu Cys Ile Ala
      290              295              300
Ser His Ser Ile Ala Arg Ile Ser Phe Ala Lys Glu Pro His Val Glu
305              310              315              320
Gln Ile Thr Arg Lys Phe Arg Leu Asn Ser Glu Gly Lys Leu Glu Gln
      325              330              335
Thr Val Ser Met Ala Thr Thr Thr Gln Pro Met Thr Gln His Leu His
      340              345              350
Val Thr Tyr Lys Lys Val Thr Pro
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&lt;210&gt; 5559

&lt;211&gt; 3866

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5559

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3866

<210> 5560

<211> 1165

<212> PRT

<213> Homo sapiens

<400> 5560

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Met Ala Asn Asp Ser Pro Ala Lys Ser Leu Val Asp Ile Asp Leu Ser
 1           5           10           15
Ser Leu Arg Asp Pro Ala Gly Ile Phe Glu Leu Val Glu Val Val Gly
 20           25           30
Asn Gly Thr Tyr Gly Gln Val Tyr Lys Gly Arg His Val Lys Thr Gly
 35           40           45
Gln Leu Ala Ala Ile Lys Val Met Asp Val Thr Glu Asp Glu Glu Glu
 50           55           60
Glu Ile Lys Leu Glu Ile Asn Met Leu Lys Lys Tyr Ser His His Arg
 65           70           75           80
Asn Ile Ala Thr Tyr Tyr Gly Ala Phe Ile Lys Lys Ser Pro Pro Gly
 85           90           95
His Asp Asp Gln Leu Trp Leu Val Met Glu Phe Cys Gly Ala Gly Ser
 100          105          110
Ile Thr Asp Leu Val Lys Asn Thr Lys Gly Asn Thr Leu Lys Glu Asp
 115          120          125
Trp Ile Ala Tyr Ile Ser Arg Glu Ile Leu Arg Gly Leu Ala His Leu
 130          135          140
His Ile His His Val Ile His Arg Asp Ile Lys Gly Gln Asn Val Leu
 145          150          155          160
Leu Thr Glu Asn Ala Glu Val Lys Leu Val Asp Phe Gly Val Ser Ala
 165          170          175
Gln Leu Asp Arg Thr Val Gly Arg Arg Asn Thr Phe Ile Gly Thr Pro
 180          185          190
Tyr Trp Met Ala Pro Glu Val Ile Ala Cys Asp Glu Asn Pro Asp Ala
 195          200          205
Thr Tyr Asp Tyr Arg Ser Asp Leu Trp Ser Cys Gly Ile Thr Ala Ile
 210          215          220
Glu Met Ala Glu Gly Ala Pro Pro Leu Cys Asp Met His Pro Met Arg
 225          230          235          240
Ala Leu Phe Leu Ile Pro Arg Asn Pro Pro Pro Arg Leu Lys Ser Lys
 245          250          255
Lys Trp Ser Lys Lys Phe Ile Asp Phe Ile Asp Thr Cys Leu Ile Lys
 260          265          270
Thr Tyr Met Gln Arg Pro Thr Thr Glu Gln Leu Leu Lys Phe Pro Phe
 275          280          285
Ile Arg Asp Gln Pro Thr Glu Arg Gln Val Arg Ile Gln Leu Lys Asp
 290          295          300
His Ile Asp Arg Thr Arg Lys Lys Arg Gly Glu Lys Glu Glu Thr Glu
 305          310          315          320
Tyr Glu Tyr Ser Gly Ser Glu Glu Glu Asp Asp Ser His Gly Glu Glu
 325          330          335
Gly Glu Pro Ser Ser Ile Met Asn Val Pro Gly Glu Ser Thr Leu Arg

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      340      345      350
Arg Asp Phe Leu Arg Leu Gln Gln Glu Asn Lys Glu Arg Ser Glu Ala
      355      360      365
Leu Arg Arg Gln Gln Leu Leu Gln Glu Gln Gln Leu Arg Glu Gln Glu
      370      375      380
Glu Tyr Lys Arg Gln Leu Leu Ala Glu Arg Gln Lys Arg Ile Glu Gln
385      390      395      400
Gln Lys Glu Gln Arg Arg Arg Leu Glu Glu Gln Gln Arg Arg Glu Arg
      405      410      415
Glu Ala Arg Arg Gln Gln Glu Arg Glu Gln Arg Arg Arg Glu Gln Glu
      420      425      430
Glu Lys Arg Arg Leu Glu Glu Leu Glu Arg Arg Arg Lys Glu Glu Glu
      435      440      445
Glu Arg Arg Arg Ala Glu Glu Glu Lys Arg Arg Val Glu Arg Glu Gln
450      455      460
Glu Tyr Ile Arg Arg Gln Leu Glu Glu Glu Gln Arg His Leu Glu Val
465      470      475      480
Leu Gln Gln Gln Leu Leu Gln Glu Gln Ala Met Leu Leu His Asp His
      485      490      495
Arg Arg Pro His Pro Gln His Ser Gln Gln Pro Pro Pro Pro Gln Gln
      500      505      510
Glu Arg Ser Lys Pro Ser Phe His Ala Pro Glu Pro Lys Ala His Tyr
      515      520      525
Glu Pro Ala Asp Arg Ala Arg Glu Val Pro Val Arg Thr Thr Ser Arg
530      535      540
Ser Pro Val Leu Ser Arg Arg Asp Ser Pro Leu Gln Gly Ser Gly Gln
545      550      555      560
Gln Asn Ser Gln Ala Gly Gln Arg Asn Ser Thr Ser Ser Ile Glu Pro
      565      570      575
Arg Leu Leu Trp Glu Arg Val Glu Lys Leu Val Pro Arg Pro Gly Ser
580      585      590
Gly Ser Ser Ser Gly Ser Ser Asn Ser Gly Ser Gln Pro Gly Ser His
595      600      605
Pro Gly Ser Gln Ser Gly Ser Gly Glu Arg Phe Arg Val Arg Ser Ser
610      615      620
Ser Lys Ser Glu Gly Ser Pro Ser Gln Arg Leu Glu Asn Ala Val Lys
625      630      635      640
Lys Pro Glu Asp Lys Lys Glu Val Phe Arg Pro Leu Lys Pro Ala Gly
      645      650      655
Glu Val Asp Leu Thr Ala Leu Ala Lys Glu Leu Arg Ala Val Glu Asp
660      665      670
Val Arg Pro Pro His Lys Val Thr Asp Tyr Ser Ser Ser Ser Glu Glu
675      680      685
Ser Gly Thr Thr Asp Glu Glu Asp Asp Asp Val Glu Gln Glu Gly Ala
690      695      700
Asp Glu Ser Thr Ser Gly Pro Glu Asp Thr Arg Ala Ala Ser Ser Leu
705      710      715      720
Asn Leu Ser Asn Gly Glu Thr Glu Ser Val Lys Thr Met Ile Val His
      725      730      735
Asp Asp Val Glu Ser Glu Pro Ala Met Thr Pro Ser Lys Glu Gly Thr
740      745      750
Leu Ile Val Arg Gln Thr Gln Ser Ala Ser Ser Thr Leu Gln Lys His
755      760      765
Lys Ser Ser Ser Ser Phe Thr Pro Phe Ile Asp Pro Arg Leu Leu Gln

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      770              775              780
Ile Ser Pro Ser Ser Gly Thr Thr Val Thr Ser Val Val Gly Phe Ser
785              790              795              800
Cys Asp Gly Met Arg Pro Glu Ala Ile Arg Gln Asp Pro Thr Arg Lys
      805              810              815
Gly Ser Val Val Asn Val Asn Pro Thr Asn Thr Arg Pro Gln Ser Asp
      820              825              830
Thr Pro Glu Ile Arg Lys Tyr Lys Lys Arg Phe Asn Ser Glu Ile Leu
      835              840              845
Cys Ala Ala Leu Trp Gly Val Asn Leu Leu Val Gly Thr Glu Ser Gly
      850              855              860
Leu Met Leu Leu Asp Arg Ser Gly Gln Gly Lys Val Tyr Pro Leu Ile
865              870              875              880
Asn Arg Arg Arg Phe Gln Gln Met Asp Val Leu Glu Gly Leu Asn Val
      885              890              895
Leu Val Thr Ile Ser Gly Lys Lys Asp Lys Leu Arg Val Tyr Tyr Leu
      900              905              910
Ser Trp Leu Arg Asn Lys Ile Leu His Asn Asp Pro Glu Val Glu Lys
      915              920              925
Lys Gln Gly Trp Thr Thr Val Gly Asp Leu Glu Gly Cys Val His Tyr
      930              935              940
Lys Val Val Lys Tyr Glu Arg Ile Lys Phe Leu Val Ile Ala Leu Lys
945              950              955              960
Ser Ser Val Glu Val Tyr Ala Trp Ala Pro Lys Pro Tyr His Lys Phe
      965              970              975
Met Ala Phe Lys Ser Phe Gly Glu Leu Val His Lys Pro Leu Leu Val
      980              985              990
Asp Leu Thr Val Glu Glu Gly Gln Arg Leu Lys Val Ile Tyr Gly Ser
      995              1000              1005
Cys Ala Gly Phe His Ala Val Asp Val Asp Ser Gly Ser Val Tyr Asp
      1010              1015              1020
Ile Tyr Leu Pro Thr His Val Arg Lys Asn Pro His Ser Met Ile Gln
1025              1030              1035              1040
Cys Ser Ile Lys Pro His Ala Ile Ile Ile Leu Pro Asn Thr Asp Gly
      1045              1050              1055
Met Glu Leu Leu Val Cys Tyr Glu Asp Glu Gly Val Tyr Val Asn Thr
      1060              1065              1070
Tyr Gly Arg Ile Thr Lys Asp Val Val Leu Gln Trp Gly Glu Met Pro
      1075              1080              1085
Thr Ser Val Ala Tyr Ile Arg Ser Asn Gln Thr Met Gly Trp Gly Glu
      1090              1095              1100
Lys Ala Ile Glu Ile Arg Ser Val Glu Thr Gly His Leu Asp Gly Val
      1105              1110              1115              1120
Phe Met His Lys Arg Ala Gln Arg Leu Lys Phe Leu Cys Glu Arg Asn
      1125              1130              1135
Asp Lys Val Phe Phe Ala Ser Val Arg Ser Gly Gly Ser Ser Gln Val
      1140              1145              1150
Tyr Phe Met Thr Leu Gly Arg Thr Ser Leu Leu Ser Trp
      1155              1160              1165

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<210> 5561  
 <211> 2089  
 <212> DNA  
 <213> Homo sapiens

<400> 5561  
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60  
ccgcacgctg gcgccagct ccgcgcgcgg aggcgcgtgt aagtttcgct ttccattcag  
120  
tgganaacga aagctgggcg ggggtgccacg agcgcggggc cagaccaagg cgggcccgga  
180  
gcggaacttc ggtcccagct cgggtcccgg ctccagtcggc acgtggaact cagcagcgga  
240  
ggctggacgc ttgcatggcg cttgagagat tccatcgtgc ctggctcaca taagcgcttc  
300  
ctggaagtga agtcgtgctg tcctgaacgc gggccaggca gctgcggcct gggggttttg  
360  
gagtgatcac gaatgagcaa ggcgtttggg ctccctgaggc aaatctgtca gtccatcctg  
420  
gctgagtcct cgagtcctcc ggagatcct gaagaaaaga aggaagaaga cagcaacatg  
480  
aagagagagc agcccagaga gcgtcccagg gcctgggact accctcatgg cctggttggg  
540  
ttacacaaca ttggacagac ctgctgcctt aactccttga ttcagggtgtt cgtaatgaat  
600  
gtggacttca ccaggatatt gaagaggatc acggtgcccc ggggagctga cagcagagg  
660  
agaagcgctc ctttcagat gcttctgctg ctggagaaga tgcaggacag ccggcagaaa  
720  
gcagtgccgc ccctggagct ggcctactgc ctgcagaagt gcaacgtgcc cttgtttgtc  
780  
caacatgatg ctgcccact gtacctcaa ctctggaacc tgattaagga ccagatcact  
840  
gatgtgcact tgggtgagag actgcaggcc ctgtatacga tccgggtgaa ggactccttg  
900  
atttgcgttg actgtgccat ggagagtagc agaaacagca gcatgctcac cctcccactt  
960  
tctctttttg atgtggactc aaagcccctg aagacactgg aggacgccct gcaactgttc  
1020  
ttccagccca gggagttatc aagcaaaagc aagtgtttct gtgagaactg tgggaagaag  
1080  
accggtggga aacaggtctt gaagctgacc catttgcccc agaccctgac aatccacctc  
1140  
atgcgattct ccatcaggaa ttcacagacg agaaagatct gccactccct gtacttcccc  
1200  
cagagcttgg atttcagcca gatccttcca atgaagcgag agtcttgtga tgctgaggag  
1260  
cagtcctggag ggcagtatga gctttttgct gtgattgcgc acgtgggaat ggcagactcc  
1320  
ggtcattact gtgtctacat ccggaatgct gtggatggaa aatggttctg cttcaatgac  
1380  
tccaatattt gcttgggtgc ctgggaagac atccagtga cctacggaaa tcctaactac  
1440  
cactggcgag aaactgcata tcttctggtt tacatgaaga tggagtgcta atggaaatgc  
1500  
ccaaaacctt cagagattga cacgctgtca ttttccattt ccgttcctgg atctacggag  
1560

tcttctaaga gattttgcaa tgaggagaag cattgttttc aaactatata actgagcctt  
 1620  
 atttataatt agggatatta tcaaaatatg taaccatgag gcccttcagg tcttgatcag  
 1680  
 tcagaatgga tgctttcacc agcagaccog gccatgtggc tgctcgggtcc tgggtgctcg  
 1740  
 ctgctgtgcg agacattagc cctttagtta tgagcctgtg ggaacttcag gggttcccag  
 1800  
 tggggagagc agtggcagtg ggaggcatct gggggccaaa ggtcagtggc aggggggtatt  
 1860  
 tcagtattat acaactgctg tgaccagact tgtatactgg ccgaatatca gtgctgtttg  
 1920  
 taatttttca ctttgagaac caacattaat tccatgatga tcaagtgttt tgtaactgct  
 1980  
 attcatttat tcagcaaata tttattgatc atctcttctc cataagatag tgtgataaac  
 2040  
 acagtcatga ataaagttat tttccacaaa aaaaaaaaaa aaaaaaaaaa  
 2089

<210> 5562

<211> 372

<212> PRT

<213> Homo sapiens

<400> 5562

Met Ser Lys Ala Phe Gly Leu Leu Arg Gln Ile Cys Gln Ser Ile Leu  
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 20 25 30  
 Asp Ser Asn Met Lys Arg Glu Gln Pro Arg Glu Arg Pro Arg Ala Trp  
 35 40 45  
 Asp Tyr Pro His Gly Leu Val Gly Leu His Asn Ile Gly Gln Thr Cys  
 50 55 60  
 Cys Leu Asn Ser Leu Ile Gln Val Phe Val Met Asn Val Asp Phe Thr  
 65 70 75 80  
 Arg Ile Leu Lys Arg Ile Thr Val Pro Arg Gly Ala Asp Glu Gln Arg  
 85 90 95  
 Arg Ser Val Pro Phe Gln Met Leu Leu Leu Leu Glu Lys Met Gln Asp  
 100 105 110  
 Ser Arg Gln Lys Ala Val Arg Pro Leu Glu Leu Ala Tyr Cys Leu Gln  
 115 120 125  
 Lys Cys Asn Val Pro Leu Phe Val Gln His Asp Ala Ala Gln Leu Tyr  
 130 135 140  
 Leu Lys Leu Trp Asn Leu Ile Lys Asp Gln Ile Thr Asp Val His Leu  
 145 150 155 160  
 Val Glu Arg Leu Gln Ala Leu Tyr Thr Ile Arg Val Lys Asp Ser Leu  
 165 170 175  
 Ile Cys Val Asp Cys Ala Met Glu Ser Ser Arg Asn Ser Ser Met Leu  
 180 185 190  
 Thr Leu Pro Leu Ser Leu Phe Asp Val Asp Ser Lys Pro Leu Lys Thr  
 195 200 205  
 Leu Glu Asp Ala Leu His Cys Phe Phe Gln Pro Arg Glu Leu Ser Ser  
 210 215 220  
 Lys Ser Lys Cys Phe Cys Glu Asn Cys Gly Lys Lys Thr Arg Gly Lys

```

225          230          235          240
Gln Val Leu Lys Leu Thr His Leu Pro Gln Thr Leu Thr Ile His Leu
          245          250          255
Met Arg Phe Ser Ile Arg Asn Ser Gln Thr Arg Lys Ile Cys His Ser
          260          265          270
Leu Tyr Phe Pro Gln Ser Leu Asp Phe Ser Gln Ile Leu Pro Met Lys
          275          280          285
Arg Glu Ser Cys Asp Ala Glu Glu Gln Ser Gly Gly Gln Tyr Glu Leu
          290          295          300
Phe Ala Val Ile Ala His Val Gly Met Ala Asp Ser Gly His Tyr Cys
305          310          315          320
Val Tyr Ile Arg Asn Ala Val Asp Gly Lys Trp Phe Cys Phe Asn Asp
          325          330          335
Ser Asn Ile Cys Leu Val Ser Trp Glu Asp Ile Gln Cys Thr Tyr Gly
          340          345          350
Asn Pro Asn Tyr His Trp Gln Glu Thr Ala Tyr Leu Leu Val Tyr Met
          355          360          365
Lys Met Glu Cys
370

```

<210> 5563  
 <211> 2878  
 <212> DNA  
 <213> Homo sapiens

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<400> 5563
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gccccggggtg aggaggcgcc agccacgacc tccgtgcccgg ggtctccagg tctgccccggg
120
agcgcagtg cagagcgggc cctagaggag gccgtggcca ccgggaccct gaacctgtct
180
aaccggcgct tgaagcaatt cccccggggc gcggcccgtg gctacgacct gtcagacatc
240
acccaggctg acctgtcccg gaaccggttt cccgaggtgc ccgaggcggc gtgccagctg
300
gtgtccctgg agggcctgag cctctaccac aattgcctga gatgcctgaa ccagccttg
360
gggaatctca cagccctcac ctacctcaac ctcagccgaa accagctgtc gctgctgcca
420
ccctacatct gccagctgcc cctgagggtc ctcacgtgca gcaacaacaa gctgggagcc
480
ctgccccctg acatcgccac cctgggaagc ctgcgacagc ttgacgtgag cagcaacgag
540
ctccaatccc tgccctcgga actgtgtggc ctctcttccc tgcgggacct caatgtccgg
600
aggaaccagc tcagtacgct gcccgaagag ctgggggacc tccctctggt ccgcctggat
660
ttctctgta accggtctc ccgaatccca gtctcttctt gccgcctgag gcacctgcag
720
gtcattctgc tggacagcaa ccctctgcag agtcacactg ccaggtctg cctgaagggg
780
aaacttcaca tcttcaagta ttgtccaca gaggccgggc agcgtgggtc ggccctgggg
840

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gacctggccc cttctcggcc cccgagtttc agtccctgcc ctgcagagga tctatttccg  
900  
ggacatcggt acgatgggtg gctggactca ggcttccaca gcgttgatag tggcagcaag  
960  
aggtgggtctg gaaatgagtc aacagatgaa ttttcagagc tgtcattccg gatctcagag  
1020  
ctggcccggg agccccgggg gccagagaa cgcaaggagg atggctcagc ggacggagac  
1080  
cctgtgcaga ttgacttcat cgacagccat gtccccgggg aggatgaaga gcgaggcact  
1140  
gtggaggagc agcgaccacc cgaattaagc cctggggcag gggacaggga gagggcacca  
1200  
agcagcaggg gggaggagcc ggcaggggag gagcgggcgc gcccggaacac cttgcagctg  
1260  
tggcaggagc gggaaacggcg gcagcagcag cagagcgggg cgtggggggc cccgagggaag  
1320  
gatagcctct tgaagccagg gctcagggct gttgtgggag gggccgcgc cgtgtccact  
1380  
caagccatgc acaacggctc gcctaagtc agtgccctcc aagcaggggg ctgcagcggg  
1440  
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1500  
acagcacctg ctccacggcc acttggtccc attcagagac caaacagctt cctcttccgt  
1560  
tcctcctctc agagtggctc aggcccttcc tcaccagact ctgtcctgag acctcggcgg  
1620  
tacccccagg ttccagatga gaaggactta atgactcagc tgcgccaggt ccttgagtcc  
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1740  
tgccagctgg ccaaccagct acggccgcgc tccgtgcctc tcattccatgt gccctccct  
1800  
gctgtgccaa aactcagtgc cctcaaggct cggaagaatg tggagagttt tctagaagcc  
1860  
tgtcgaaaaa tgggggtgcc tgaggctgac ctgtgctgc cctcggatct cctccagggc  
1920  
actgcccggg ggctgcggac cgcgctggag gccgtgaagc ggggtggggg caaggcccta  
1980  
ccgcccctct gggccccttc tggctcgggc ggcttcgtcg tcttctacgt ggtcctcatg  
2040  
ctgctgctct atgtcaccta cactcggctc ctgggttctt agggcccaaa atcgccctc  
2100  
cctcacccct ttccttctct ctctatttat aaggctccctg ctccaccga cccacactgc  
2160  
ggtgccttca gcccaccca aagacactag tgcacccctc tcacagacac tgacctcaga  
2220  
ggccccactc tggtgcccc agaccctggg ccccagcct ctggcctccc tccagtagcc  
2280  
ccacgagtcc ccaccttca gtgctgacgg tgccttcctg tccccgcgg ccctgccct  
2340  
gccctctgta ccccgtagg ggtggcagga gctggagtct ccccttctc cctgtgcct  
2400  
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2460

atctatatatt gtaggggttc gggggcccagg ccgggtccct atctctgtgt ataaactgta  
 2520  
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 2580  
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 2640  
 ctctcatgct cccggagcgt ccgccaaccc cccgtgtcac ctcccttctg ttatcgctga  
 2700  
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 2760  
 ccccgacccc ctgccacagg ccggaagccg cagggggcac cgtggggaag ctaaccggc  
 2820  
 cccttccccc aggagtcact gtgccagccc caccacatcc tggaagagga ggaggcct  
 2878

<210> 5564

<211> 683

<212> PRT

<213> Homo sapiens

<400> 5564

Met Ala Ala Val Ala Ala Pro Leu Ala Ala Gly Gly Glu Glu Ala  
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 20 25 30  
 Ser Ala Glu Arg Ala Leu Glu Glu Ala Val Ala Thr Gly Thr Leu Asn  
 35 40 45  
 Leu Ser Asn Arg Arg Leu Lys His Phe Pro Arg Gly Ala Ala Arg Ser  
 50 55 60  
 Tyr Asp Leu Ser Asp Ile Thr Gln Ala Asp Leu Ser Arg Asn Arg Phe  
 65 70 75 80  
 Pro Glu Val Pro Glu Ala Ala Cys Gln Leu Val Ser Leu Glu Gly Leu  
 85 90 95  
 Ser Leu Tyr His Asn Cys Leu Arg Cys Leu Asn Pro Ala Leu Gly Asn  
 100 105 110  
 Leu Thr Ala Leu Thr Tyr Leu Asn Leu Ser Arg Asn Gln Leu Ser Leu  
 115 120 125  
 Leu Pro Pro Tyr Ile Cys Gln Leu Pro Leu Arg Val Leu Ile Val Ser  
 130 135 140  
 Asn Asn Lys Leu Gly Ala Leu Pro Pro Asp Ile Gly Thr Leu Gly Ser  
 145 150 155 160  
 Leu Arg Gln Leu Asp Val Ser Ser Asn Glu Leu Gln Ser Leu Pro Ser  
 165 170 175  
 Glu Leu Cys Gly Leu Ser Ser Leu Arg Asp Leu Asn Val Arg Arg Asn  
 180 185 190  
 Gln Leu Ser Thr Leu Pro Glu Glu Leu Gly Asp Leu Pro Leu Val Arg  
 195 200 205  
 Leu Asp Phe Ser Cys Asn Arg Val Ser Arg Ile Pro Val Ser Phe Cys  
 210 215 220  
 Arg Leu Arg His Leu Gln Val Ile Leu Leu Asp Ser Asn Pro Leu Gln  
 225 230 235 240  
 Ser Pro Pro Ala Gln Val Cys Leu Lys Gly Lys Leu His Ile Phe Lys  
 245 250 255  
 Tyr Leu Ser Thr Glu Ala Gly Gln Arg Gly Ser Ala Leu Gly Asp Leu

260	265	270
Ala Pro Ser Arg Pro Pro Ser Phe Ser Pro Cys Pro Ala Glu Asp Leu		
275	280	285
Phe Pro Gly His Arg Tyr Asp Gly Gly Leu Asp Ser Gly Phe His Ser		
290	295	300
Val Asp Ser Gly Ser Lys Arg Trp Ser Gly Asn Glu Ser Thr Asp Glu		
305	310	315
Phe Ser Glu Leu Ser Phe Arg Ile Ser Glu Leu Ala Arg Glu Pro Arg		
325	330	335
Gly Pro Arg Glu Arg Lys Glu Asp Gly Ser Ala Asp Gly Asp Pro Val		
340	345	350
Gln Ile Asp Phe Ile Asp Ser His Val Pro Gly Glu Asp Glu Glu Arg		
355	360	365
Gly Thr Val Glu Glu Gln Arg Pro Pro Glu Leu Ser Pro Gly Ala Gly		
370	375	380
Asp Arg Glu Arg Ala Pro Ser Ser Arg Arg Glu Glu Pro Ala Gly Glu		
385	390	395
Glu Arg Arg Arg Pro Asp Thr Leu Gln Leu Trp Gln Glu Arg Glu Arg		
405	410	415
Arg Gln Gln Gln Gln Ser Gly Ala Trp Gly Ala Pro Arg Lys Asp Ser		
420	425	430
Leu Leu Lys Pro Gly Leu Arg Ala Val Val Gly Gly Ala Ala Ala Val		
435	440	445
Ser Thr Gln Ala Met His Asn Gly Ser Pro Lys Ser Ser Ala Ser Gln		
450	455	460
Ala Gly Gly Cys Ser Gly Ala Gly Ser Pro Ala Pro Ala Pro Ala Ser		
465	470	475
Gln Glu Pro Leu Pro Ile Ala Gly Pro Ala Thr Ala Pro Ala Pro Arg		
485	490	495
Pro Leu Gly Ser Ile Gln Arg Pro Asn Ser Phe Leu Phe Arg Ser Ser		
500	505	510
Ser Gln Ser Gly Ser Gly Pro Ser Ser Pro Asp Ser Val Leu Arg Pro		
515	520	525
Arg Arg Tyr Pro Gln Val Pro Asp Glu Lys Asp Leu Met Thr Gln Leu		
530	535	540
Arg Gln Val Leu Glu Ser Arg Leu Gln Arg Pro Leu Pro Glu Asp Leu		
545	550	555
Ala Glu Ala Leu Ala Ser Gly Val Ile Leu Cys Gln Leu Ala Asn Gln		
565	570	575
Leu Arg Pro Arg Ser Val Pro Phe Ile His Val Pro Ser Pro Ala Val		
580	585	590
Pro Lys Leu Ser Ala Leu Lys Ala Arg Lys Asn Val Glu Ser Phe Leu		
595	600	605
Glu Ala Cys Arg Lys Met Gly Val Pro Glu Ala Asp Leu Cys Ser Pro		
610	615	620
Ser Asp Leu Leu Gln Gly Thr Ala Arg Gly Leu Arg Thr Ala Leu Glu		
625	630	635
Ala Val Lys Arg Val Gly Gly Lys Ala Leu Pro Pro Leu Trp Pro Pro		
645	650	655
Ser Gly Leu Gly Gly Phe Val Val Phe Tyr Val Val Leu Met Leu Leu		
660	665	670
Leu Tyr Val Thr Tyr Thr Arg Leu Leu Gly Ser		
675	680	



<210> 5565  
 <211> 472  
 <212> DNA  
 <213> Homo sapiens

<400> 5565  
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 60  
 tcacgcggta catgggtac agttccttgt ccgagggctt ccgggagctg gagccgcaca  
 120  
 gaatgaagg gctcactggt agtggttccc aacttcgttg catattaaac ccccgaggaga  
 180  
 acttaaaactc cagtgccag tcctatgcaa tcagatcctg ggtctccact gtgcagcgcc  
 240  
 cgtggagagc cagcgatgtg gagggtcgag atcacccagt tctttgggga caggggtctca  
 300  
 ctgcccccaa ggctggagtc cgggtggtgca atcacggctc acagcagtct cgacctccag  
 360  
 ggctcaagcg atcctccagc ctacagctcc cgagcagctg ggagcacagg cgcataccac  
 420  
 gcgtggcttt tttgagacga gggttgcca tgtttcccag gctggtctcg aa  
 472

<210> 5566  
 <211> 76  
 <212> PRT  
 <213> Homo sapiens

<400> 5566  
 Met Gln Ser Asp Pro Gly Ser Pro Leu Cys Ser Ala Arg Gly Glu Pro  
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 Ala Met Trp Arg Val Glu Ile Thr Gln Phe Phe Gly Asp Arg Val Ser  
 20 25 30  
 Leu Pro Pro Arg Leu Glu Ser Gly Gly Ala Ile Thr Ala His Ser Ser  
 35 40 45  
 Leu Asp Leu Gln Gly Ser Ser Asp Pro Pro Ala Ser Ala Ser Arg Ala  
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<210> 5567  
 <211> 968  
 <212> DNA  
 <213> Homo sapiens

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 780  
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 968

&lt;210&gt; 5568

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5568

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 Ala Ser Ile Pro Ala Ala Ser Leu Phe Leu Ile Cys Ile His Ser Val  
 20 25 30  
 His Arg Ser Ile His Leu Ala Pro Leu Gln Ile Trp Val Leu Cys Lys  
 35 40 45  
 Ile Leu Pro Trp Asp Thr Glu Gly Lys Ser Asp Thr Ala Leu Leu Ser  
 50 55 60  
 Ser Ser Gln Thr Leu Arg Tyr Pro Asp Thr Thr Ala Leu Ile Val Ser  
 65 70 75 80  
 Glu Asn Thr Ala Thr Ser Ala Gly Lys Tyr Gln Arg Cys Phe Thr Arg  
 85 90 95  
 Tyr Met Tyr Gln Ile Leu Lys Ala Ala Val Pro Lys Tyr His Lys Leu  
 100 105 110  
 His Gly Leu Lys Gln Gln Lys Phe Ile Pro Ser Gln Ser Trp Arg Pro  
 115 120 125  
 Asp Val  
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&lt;210&gt; 5569

&lt;211&gt; 876

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5569

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&lt;210&gt; 5570

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5570

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Thr Ala Arg Leu Gly Gln Ser Lys Ser Trp Glu Val Thr Leu Arg Leu
1           5           10          15
Leu Val Gln Ala Val Glu Tyr Asn Ile Phe Glu Gly Met Glu Cys His
20          25          30
Gly Ser Pro Leu Val Val Ile Ser Gln Gly Lys Ile Val Phe Glu Asp
35          40          45
Gly Asn Ile Asn Val Asn Lys Gly Met Gly Arg Phe Ile Pro Arg Lys
50          55          60
Ala Phe Pro Glu His Ser Ser Thr Trp Leu Glu Leu His Asn His Gly
65          70          75          80
Arg Arg His Val Cys Glu Ala Ser Trp Gly Cys Thr Ala Asp Pro Leu
85          90          95
Leu Ser Pro Leu Ala Leu Ser Ala Ala Phe Met Trp Leu Ser Pro Ser

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      100      105      110
Val Leu Gln Ala Phe Ile Ser Phe Arg Ala Ala Pro Ser Leu Cys Pro
      115      120      125
Gly Thr Leu Ala Lys Met Gln Cys Leu Pro Asn Ser His Ile Ser Phe
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Asn Gln Gly Ala Ile Pro Ala Trp Lys Ser Pro Ser Cys Ser Cys Trp
      145      150      155      160
Gln Val Gln Val Pro Val Cys Asp Gly
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<210> 5571  
 <211> 405  
 <212> DNA  
 <213> Homo sapiens

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<400> 5571
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180
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<210> 5572  
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 <212> PRT  
 <213> Homo sapiens

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<400> 5572
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Gln Leu Arg Asp Pro Thr Ser Pro Lys Phe Pro Glu Asp Phe Asp Asp
35      40      45
Gly Glu His Ala Lys Gln Lys Ser Val Ile Ser Trp Leu Leu Asn His
50      55      60
Asp Pro Ala Lys Arg Pro Thr Ala Thr Glu Leu Lys Ser Glu Leu
65      70      75      80
Leu Pro Pro Pro Gln Met Glu Glu Ser Glu Leu His Glu Val Leu His
85      90      95
His Thr Leu Thr Asn Val Asp Gly Lys Ala Tyr Arg Thr Met Met Ala
100      105      110
Gln Ile Phe Ser Gln Arg Leu Ala Gly Ala Gly Gly Gly Tyr Arg
115      120      125
Ser Arg Leu Gly Val Pro Arg

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130

135

&lt;210&gt; 5573

&lt;211&gt; 1279

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5573

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&lt;210&gt; 5574

<211> 312  
 <212> PRT  
 <213> Homo sapiens

<400> 5574  
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 Ala Glu Ile Glu Glu Ala Leu Gln Ala Gly Leu Ala Pro Leu Gly Glu  
 35 40 45  
 Tyr Arg Leu Leu Gly Arg Met Phe Arg Arg Asp Glu Asn Arg Lys Val  
 50 55 60  
 Ala Leu Val Gly Leu Thr Ala Glu Thr Ser His Ala Leu Val Pro Lys  
 65 70 75 80  
 Glu Ile Pro Gly Lys Gly Gly Ile Trp Arg Val Ile Phe Lys Pro Pro  
 85 90 95  
 Asp Pro Asp Asn Thr Phe Leu Ser Arg Leu Asn Glu Phe Leu Ala Gly  
 100 105 110  
 Glu Gly Met Thr Val Gly Glu Leu Ser Arg Ala Leu Gly His Glu Asn  
 115 120 125  
 Gly Ser Leu Asp Pro Glu Gln Gly Met Ile Pro Glu Met Trp Ala Pro  
 130 135 140  
 Met Leu Ala Gln Ala Leu Glu Ala Leu Gln Pro Ala Leu Gln Cys Leu  
 145 150 155 160  
 Lys Tyr Lys Lys Leu Arg Val Phe Ser Gly Arg Glu Ser Pro Glu Pro  
 165 170 175  
 Gly Glu Glu Glu Phe Gly Arg Trp Met Phe His Thr Thr Gln Met Ile  
 180 185 190  
 Lys Ala Trp Gln Val Pro Asp Val Glu Lys Arg Arg Arg Leu Leu Glu  
 195 200 205  
 Ser Leu Arg Gly Pro Ala Leu Asp Val Ile Arg Val Leu Lys Ile Asn  
 210 215 220  
 Asn Pro Leu Ile Thr Val Asp Glu Cys Leu Gln Ala Leu Glu Glu Val  
 225 230 235 240  
 Phe Gly Val Thr Asp Asn Pro Arg Glu Leu Gln Val Lys Tyr Leu Thr  
 245 250 255  
 Thr Tyr Gln Lys Asp Glu Glu Lys Leu Ser Ala Tyr Val Leu Arg Leu  
 260 265 270  
 Glu Pro Leu Leu Gln Lys Leu Val Gln Arg Gly Ala Ile Glu Arg Asp  
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<210> 5575  
 <211> 2405  
 <212> DNA  
 <213> Homo sapiens

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<210> 5576

<211> 367

<212> PRT

<213> Homo sapiens

<400> 5576

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 Gln Leu Leu Gln Cys Leu Val Pro Gly Ser Thr Thr Leu His Ser Ala  
 50 55 60  
 Glu Ile Leu Ala Glu Ile Ala Arg Ile Leu Arg Pro Gly Gly Cys Leu  
 65 70 75 80  
 Phe Leu Lys Glu Pro Val Glu Thr Ala Val Asp Asn Asn Ser Lys Val  
 85 90 95  
 Lys Thr Ala Ser Lys Leu Cys Ser Ala Leu Thr Leu Ser Gly Leu Val  
 100 105 110  
 Glu Val Lys Glu Leu Gln Arg Glu Pro Leu Thr Pro Glu Glu Val Gln  
 115 120 125  
 Ser Val Arg Glu His Leu Gly His Glu Ser Asp Asn Leu Leu Phe Val  
 130 135 140  
 Gln Ile Thr Gly Lys Lys Pro Asn Phe Glu Val Gly Ser Ser Arg Gln  
 145 150 155 160  
 Leu Lys Leu Ser Ile Thr Lys Lys Ser Ser Pro Ser Val Lys Pro Ala



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Glu	Asp	Asp	Ser	Met	Cys	Ile	Phe	Cys	Gly	Cys	Ser	Leu	Thr	His	Arg
	195		200		205										
Trp	Pro	Leu	Glu	His	Val	Val	Arg	Leu	Asn	Met	Met	Ile	Asn	Gln	Lys
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Glu	Asp	Arg	Val	Asp	Thr	Phe	Phe	Thr	Leu	Asp	Ser	Lys	Phe	Pro	Leu
	225		230		235										
Glu	Ala	Cys	Ser	His	Phe	Ser	Phe	Ser	Leu	Ala	Glu	Thr	Thr	Thr	Val
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Leu	Leu	Asp	Pro	Glu	Asp	Leu	Lys	Lys	Pro	Asp	Pro	Ala	Ser	Leu	Arg
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Ala	Ala	Ser	Cys	Gly	Glu	Gly	Lys	Lys	Arg	Lys	Ala	Cys	Lys	Asn	Cys
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Thr	Cys	Gly	Leu	Ala	Glu	Glu	Leu	Glu	Lys	Glu	Lys	Ser	Arg	Glu	Gln
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Met	Ser	Ser	Gln	Pro	Lys	Ser	Ala	Cys	Gly	Asn	Cys	Tyr	Leu	Gly	Asp
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Ala	Phe	Arg	Cys	Ala	Ser	Cys	Pro	Tyr	Leu	Gly	Met	Pro	Ala	Phe	Lys
	340		345		350										
Pro	Gly	Glu	Lys	Val	Leu	Leu	Ser	Asp	Ser	Asn	Leu	His	Asp	Ala	
	355		360		365										

&lt;210&gt; 5577

&lt;211&gt; 659

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5577

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<210> 5578  
 <211> 166  
 <212> PRT  
 <213> Homo sapiens

<400> 5578  
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 Xaa Glu Ser Leu Pro Glu Gln Leu Pro Val Ala Asp Met Arg Ala Leu  
 35 40 45  
 Leu Thr Gly Lys Asp Cys Pro His Val Arg Glu Lys Gly Ser Gly Lys  
 50 55 60  
 Gln Asn Lys Asp Leu Tyr Glu Leu Ala Phe Ser Ile Ser Tyr Asp Arg  
 65 70 75 80  
 Gly Glu Glu Glu Ala Tyr Leu Asn Phe Ile Ala Pro Ser Lys Arg Glu  
 85 90 95  
 Phe Tyr Leu Trp Thr Asp Gly Leu Ser Ala Leu Leu Gly Ser Pro Met  
 100 105 110  
 Gly Ser Glu Gln Thr Arg Leu Asp Leu Glu Gln Leu Leu Thr Met Glu  
 115 120 125  
 Thr Lys Leu Arg Leu Leu Glu Leu Glu Asn Val Pro Ile Pro Glu Arg  
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 145 150 155 160  
 Cys Ser Ile Ala Glu Pro  
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<210> 5579  
 <211> 1312  
 <212> DNA  
 <213> Homo sapiens

<400> 5579  
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 840  
 cagagcagtt aaaccttggga gccctttatat tttcctcttt taaaatttcc accttttggg  
 900  
 cttgttttta atcttgtgca tgatacccca tgtaaaatcc accttgtgca agatttcttg  
 960  
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 1020  
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 1080  
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 1140  
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 1200  
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 1312

&lt;210&gt; 5580

&lt;211&gt; 283

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5580

Thr Pro Val Ser Thr Met Ser Ser Ser Gln Pro Val Ser Arg Pro Leu  
 1 5 10 15  
 Gln Pro Ile Gln Pro Ala Pro Pro Leu Gln Pro Ser Gly Val Pro Thr  
 20 25 30  
 Ser Gly Pro Ser Gln Thr Thr Ile His Leu Leu Pro Thr Ala Pro Thr  
 35 40 45  
 Thr Val Asn Val Thr His Arg Pro Val Thr Gln Val Thr Thr Arg Leu  
 50 55 60  
 Pro Val Pro Arg Ala Pro Ala Asn His Gln Val Val Tyr Thr Thr Leu  
 65 70 75 80  
 Pro Ala Pro Pro Ala Gln Ala Pro Leu Arg Gly Thr Val Met Gln Ala  
 85 90 95  
 Pro Ala Val Arg Gln Val Asn Pro Gln Asn Ser Val Thr Val Arg Val  
 100 105 110  
 Pro Gln Thr Thr Thr Tyr Val Val Asn Asn Gly Leu Thr Leu Gly Ser  
 115 120 125  
 Thr Gly Pro Gln Leu Thr Val His His Arg Pro Pro Gln Val His Thr  
 130 135 140  
 Glu Pro Pro Arg Pro Val His Pro Ala Pro Leu Pro Glu Ala Pro Gln  
 145 150 155 160  
 Pro Gln Arg Leu Pro Pro Glu Ala Ala Ser Thr Ser Leu Pro Gln Lys

```

      165      170      175
Pro His Leu Lys Leu Ala Arg Val Gln Ser Gln Asn Gly Ile Val Leu
      180      185      190
Ser Trp Ser Val Leu Glu Val Asp Arg Ser Cys Ala Thr Val Asp Ser
      195      200      205
Tyr His Leu Tyr Ala Tyr His Glu Glu Pro Ser Ala Thr Val Pro Ser
      210      215      220
Gln Trp Lys Lys Ile Gly Glu Val Lys Ala Leu Pro Leu Pro Met Ala
      225      230      235      240
Cys Thr Leu Thr Gln Phe Val Ser Gly Ser Lys Tyr Tyr Phe Ala Val
      245      250      255
Arg Ala Lys Asp Ile Tyr Gly Arg Phe Gly Pro Phe Cys Asp Pro Gln
      260      265      270
Ser Thr Asp Val Ile Ser Ser Thr Gln Ser Ser
      275      280

```

<210> 5581  
 <211> 720  
 <212> DNA  
 <213> Homo sapiens

```

<400> 5581
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120
gcgtcccgcg agctgcctgt ctgctcgttg caggtcaccg agccgtcaag caagaatctg
180
tgaggagcaga tctgcaagga gtatgaagct gagcagcctc cctttccaga aggatataaa
240
gtcaaacagg agcctgtgat tacggttgcg ccagtagagg aaatgctttt tcatggtctc
300
agtgcagagc actattttcc gggttcccat ttcacatga tctcacgtac accctgtcct
360
caagataaat cggaacaat caacccaaaa acatgttctc ccaagaata ttggaaact
420
ttcatctttc ctgttctgct tcccggaatg gctagcctgc ttcaccaagc gaagaaagaa
480
aaatgttttg aggtcagttg tttggcagga tttctttatt ttgagattct caatcattca
540
ttattatcag atgatagctc attatcttgg taccatcagg ttgttctcca gatgacctt
600
tcgggaggga aagcctgtgt ttggggtcac ttaccagtt ccagccacac catctagttg
660
tgcacatata tgcgctgccca tctgtctggc cacttggact ccggagagct ttccgcctt
720

```

<210> 5582  
 <211> 212  
 <212> PRT  
 <213> Homo sapiens

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<400> 5582
Met Ala Ala Pro Arg Gln Ile Pro Ser His Ile Val Arg Leu Lys Pro

```

```

1           5           10           15
Ser Cys Ser Thr Asp Ser Ser Phe Thr Arg Thr Pro Val Pro Thr Val
20           25           30
Ser Leu Ala Ser Arg Glu Leu Pro Val Ser Ser Trp Gln Val Thr Glu
35           40           45
Pro Ser Ser Lys Asn Leu Trp Glu Gln Ile Cys Lys Glu Tyr Glu Ala
50           55           60
Glu Gln Pro Pro Phe Pro Glu Gly Tyr Lys Val Lys Gln Glu Pro Val
65           70           75           80
Ile Thr Val Ala Pro Val Glu Glu Met Leu Phe His Gly Phe Ser Ala
85           90           95
Glu His Tyr Phe Pro Val Ser His Phe Thr Met Ile Ser Arg Thr Pro
100          105          110
Cys Pro Gln Asp Lys Ser Glu Thr Ile Asn Pro Lys Thr Cys Ser Pro
115          120          125
Lys Glu Tyr Leu Glu Thr Phe Ile Phe Pro Val Leu Leu Pro Gly Met
130          135          140
Ala Ser Leu Leu His Gln Ala Lys Lys Glu Lys Cys Phe Glu Val Ser
145          150          155          160
Cys Leu Ala Gly Phe Leu Tyr Phe Glu Ile Leu Asn His Ser Leu Leu
165          170          175
Ser Asp Asp Ser Ser Leu Ser Trp Tyr His Gln Val Val Leu Gln Met
180          185          190
Thr Pro Ser Gly Lys Ala Cys Val Ser Trp Gly His Leu Pro Ser Ser
195          200          205
Ser His Thr Ile
210

```

&lt;210&gt; 5583

&lt;211&gt; 2101

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5583

```

nnaggccgag actgctgtgt gctgcaagag gactttcttg cgcacagggg ccgacccac
60
gtctacctgc agcgcattca gctcaacaac cccacggagc gcgtggccgc gctgcagact
120
gtggggccca ctgccggccc agcccccaat gccttcacca gtaccctgga gaaggtcgga
180
gaccatcagt tcctctctta ctcaggccgg tccccgccta cgccactgg gttggtgcac
240
ctggtggttg tggccgcaa gaagctggtg aaccgcctcc aagtggctcc caagacgcag
300
ctggatgaga cggtgctgtg ggtggtgcac gtctctggcc ccattaaccc ccaggtgctc
360
aaaagcaaag cagccaagga gctcaaggcg ctgcaggact tggcacggaa ggaaatgctg
420
gagctcttgg acatgccagc ggccggagctg cttcaagacc accagctcct ctgggctcag
480
ctcttcagcc caggagtggg aatgaagaag atcactgaca cccacacgcc gtctggcctc
540
accgtgaacc tgacgtctta ttacatgctc tcctgctcgc cagccccact gctcagcccc
600

```

tccttgagcc acagggagcg agaccagatg gagtcgacgc tcaactatga agatcactgc  
660  
ttcagcgggc acgccaccat gcacgccgag aacctgtggc cggggcggct gtcctcgcgc  
720  
cagcagatcc tgcagctctc tgacctgtgg aggctgaccc tccagaagcg tggctgcaag  
780  
gggctgggtga aggtgggtgc cccaggcatc ctgcagggga tgggtgctcag ctttgggggg  
840  
ctgcagttca cagagaacca cctccagttc caggccgacc ccgacgtgct gcacaacagc  
900  
tatgcattgc atggcatccg ctacaagaac gaccatatca acctggccgt gctgcggatg  
960  
ccgagggcaa gccctaccta cactgtctcg tggagtcccg tggccagcct gtcanaagatc  
1020  
tatgcctgca aggcaggctg cctggacgag ccagtggagc tgacctcggc gccacgggc  
1080  
cacaccttct cggtcattgt gacacagccc atcacgccac tgctctacat ctccaccgac  
1140  
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1200  
gagcacatgg cccagcagga ccccggtg ccttctctct tctgggtcag cgtggcctcc  
1260  
ctaatacccc tcttccacct ctctctcttc aagctcatct acaacgagta ctgtgggcct  
1320  
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1380  
tgctttcagc caccatttgc acaagacacc cagcactgaa agtcccgtg ccaggagcaa  
1440  
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1500  
tgagtgtgga tacaccagag tttgcattgg aaggaatgag tgtcacgtgg ggaggggaag  
1560  
ggccagtgga ccttttgtaa gctttccact caataaaatg aacctgtatg gcaaatactt  
1620  
gaaatggaa cactcccttc cactttcccc ctttctctg tcccaggaaa tagatcatct  
1680  
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1740  
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1800  
agatgggtgag tgttggcggg gatgtccgct cggcgctcg gaggcccccac ggtcccagg  
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1920  
gtcctcctcg ggtttgcacg ccttttttta ggagcctgtg gacatctgtg gttttgtact  
1980  
ttggggcttc aggggaggtg ttttaacttc tagtgattga tgattgtcag gttttgaaat  
2040  
accaaagctt ttttgtctg tttttaata aatatcttcc aaactttaaa aaaaaaaaaa  
2100  
a  
2101

&lt;210&gt; 5584

&lt;211&gt; 454

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5584

```

Xaa Gly Arg Asp Cys Val Leu Leu Gln Glu Asp Phe Leu Ala His Arg
 1           5           10           15
Gly Arg Pro His Val Tyr Leu Gln Arg Ile Gln Leu Asn Asn Pro Thr
      20           25           30
Glu Arg Val Ala Ala Leu Gln Thr Val Gly Pro Thr Ala Gly Pro Ala
      35           40           45
Pro Asn Ala Phe Thr Ser Thr Leu Glu Lys Val Gly Asp His Gln Phe
      50           55           60
Leu Leu Tyr Ser Gly Arg Ser Pro Pro Thr Pro Thr Gly Leu Val His
      65           70           75           80
Leu Val Val Val Ala Ala Lys Lys Leu Val Asn Arg Leu Gln Val Ala
      85           90           95
Pro Lys Thr Gln Leu Asp Glu Thr Val Leu Trp Val Val His Val Ser
      100          105          110
Gly Pro Ile Asn Pro Gln Val Leu Lys Ser Lys Ala Ala Lys Glu Leu
      115          120          125
Lys Ala Leu Gln Asp Leu Ala Arg Lys Glu Met Leu Glu Leu Leu Asp
      130          135          140
Met Pro Ala Ala Glu Leu Leu Gln Asp His Gln Leu Leu Trp Ala Gln
      145          150          155          160
Leu Phe Ser Pro Gly Val Glu Met Lys Lys Ile Thr Asp Thr His Thr
      165          170          175          180
Pro Ser Gly Leu Thr Val Asn Leu Thr Leu Tyr Tyr Met Leu Ser Cys
      180          185          190          195
Ser Pro Ala Pro Leu Leu Ser Pro Ser Leu Ser His Arg Glu Arg Asp
      195          200          205          210
Gln Met Glu Ser Thr Leu Asn Tyr Glu Asp His Cys Phe Ser Gly His
      210          215          220          225
Ala Thr Met His Ala Glu Asn Leu Trp Pro Gly Arg Leu Ser Ser Val
      225          230          235          240
Gln Gln Ile Leu Gln Leu Ser Asp Leu Trp Arg Leu Thr Leu Gln Lys
      245          250          255          260
Arg Gly Cys Lys Gly Leu Val Lys Val Gly Ala Pro Gly Ile Leu Gln
      260          265          270          275
Gly Met Val Leu Ser Phe Gly Gly Leu Gln Phe Thr Glu Asn His Leu
      275          280          285          290
Gln Phe Gln Ala Asp Pro Asp Val Leu His Asn Ser Tyr Ala Leu His
      290          295          300          305
Gly Ile Arg Tyr Lys Asn Asp His Ile Asn Leu Ala Val Leu Arg Met
      305          310          315          320
Pro Arg Ala Ser Pro Thr Tyr Thr Cys Pro Trp Ser Pro Val Ala Ser
      325          330          335          340
Leu Ser Xaa Ile Tyr Ala Cys Lys Ala Gly Cys Leu Asp Glu Pro Val
      340          345          350          355
Glu Leu Thr Ser Ala Pro Thr Gly His Thr Phe Ser Val Met Val Thr
      355          360          365          370
Gln Pro Ile Thr Pro Leu Leu Tyr Ile Ser Thr Asp Leu Thr His Leu
      370          375          380          385
Gln Asp Leu Arg His Thr Leu His Leu Lys Ala Ile Leu Ala His Asp

```

```

385          390          395          400
Glu His Met Ala Gln Gln Asp Pro Gly Leu Pro Phe Leu Phe Trp Phe
          405          410          415
Ser Val Ala Ser Leu Ile Thr Leu Phe His Leu Phe Leu Phe Lys Leu
          420          425          430
Ile Tyr Asn Glu Tyr Cys Gly Pro Gly Ala Lys Pro Leu Phe Arg Ser
          435          440          445
Lys Glu Asp Pro Ser Val
          450

```

```

<210> 5585
<211> 740
<212> DNA
<213> Homo sapiens

```

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<400> 5585
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120
ctcacaagaa taaaatatac aatgctacat tgagtgggta aaaatacaca aaaaagtagt
180
tttaacaatc tataaathtt ttatacttaa aatcatgatt gagttgaaat aaaaaagtgc
240
attttcaattg ctaaaaaaat aatatcggta tagttaacac aaggggggaaa tcagtacatt
300
gaggggatctg acaggatgct ggaaaaaatg actcagggaa gccgggcagc atgggctcct
360
ttggagattc aggagcggag ctcagttcca cctcactgca gtccctggg gccaaagcagc
420
cctcctctcc ccagtatctt tcccatctta agagatcctg tcctacctac ctgtcacctc
480
cccaacccaa agactcctct aaacttcttt gcagcatgac agctgcctgc cctacactga
540
gtctacttga ctttcaattg cgtctccgca gagaggtagg agagggacac tgccccattc
600
tggacttgac ataagtaccc cagccacatg gccttcatcc ttatgaccta gcaggcagaa
660
cagggaccaaa gcagcttcta tttgtcaaaa ctcttttga caaatattca acattcaaca
720
acaagctttg taaacctaac
740

```

```

<210> 5586
<211> 87
<212> PRT
<213> Homo sapiens

```

```

<400> 5586
Met Gly Ser Phe Gly Asp Ser Gly Ala Glu Leu Ser Ser Thr Ser Leu
1          5          10          15
Gln Phe Pro Gly Ala Lys Gln Pro Ser Ser Pro Gln Tyr Leu Ser His
20          25          30
Leu Lys Arg Ser Cys Pro Thr Tyr Leu Ser Pro Pro Gln Pro Lys Asp

```



```

      35          40          45
Ser Ser Lys Leu Leu Cys Ser Met Thr Ala Ala Cys Pro Thr Leu Ser
      50          55          60
Leu Leu Asp Leu Gln Leu Arg Leu Arg Arg Glu Val Gly Glu Gly His
      65          70          75          80
Cys Pro Ile Leu Asp Leu Thr
      85

```

&lt;210&gt; 5587

&lt;211&gt; 853

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5587

```

tttttagag attagtat ttt ccttggtcac aagacaccta attgacttgc aacaagacaa
60
aatattcagt gcactcgtt ggggccaaca tggatgatga cgtgtttctc ataagccctt
120
ttcattgttt tctcaatttg cttcagaaaa acttgcggga ttcgtccaca taaagtgtgc
180
acagtctcca ,aaaacttcag ctgaaggggg taatacatgg attgaaagag attgtcttga
240
aagggaataat ccgtatttgc ttcataagat gctctgaacg ttggttgctt atcgtcatgg
300
tagacgcctc gggtttccatg cagaacagac acaccttcat gctcagcctc tctgcagttg
360
cttccgtaca tgcagtgatc gggacggtag ttccactggc aggggaatac atagagacac
420
tctgggttga aataaaaaat aatatttaat aaatcctggt ctccccacgt gatggcattc
480
ttgtacttct ggtacagagg gtacaacatg tcctccaag ccaggcctgt tggaatcatg
540
ctgttcttga actgggtact tcttatccga gttaaattca ttaacatgac tcctgaatta
600
actcctgcag agccatagaa aggatgccta gcaaagcggc tgtaccagcc aatcttgggg
660
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720
cagatgtcat caacaggtct cagaaagagg acatcggtgt ccacgtagag aagtgaagtc
780
acatccttta aaatcaccgg aagaaagagt ctctgggcag cacagggttt gaacaatttc
840
ttccactcct gag
853

```

&lt;210&gt; 5588

&lt;211&gt; 204

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5588

```

Met Ala Pro Glu His Glu Ile Pro Lys Ile Gly Trp Tyr Ser Arg Phe
  1           5           10          15
Ala Arg His Pro Phe Tyr Gly Ser Ala Gly Val Asn Ser Gly Val Met

```

```

      20      25      30
Leu Met Asn Leu Thr Arg Ile Arg Ser Thr Gln Phe Lys Asn Ser Met
      35      40      45
Ile Pro Thr Gly Leu Ala Trp Glu Asp Met Leu Tyr Pro Leu Tyr Gln
      50      55      60
Lys Tyr Lys Asn Ala Ile Thr Trp Gly Asp Gln Asp Leu Leu Asn Ile
      65      70      75      80
Ile Phe Tyr Phe Asn Pro Glu Cys Leu Tyr Val Phe Pro Cys Gln Trp
      85      90      95
Asn Tyr Arg Pro Asp His Cys Met Tyr Gly Ser Asn Cys Arg Glu Ala
      100      105      110
Glu His Glu Gly Val Ser Val Leu His Gly Asn Arg Gly Val Tyr His
      115      120      125
Asp Asp Lys Gln Pro Thr Phe Arg Ala Leu Tyr Glu Ala Ile Arg Asp
      130      135      140
Phe Pro Phe Gln Asp Asn Leu Phe Gln Ser Met Tyr Tyr Pro Leu Gln
      145      150      155      160
Leu Lys Phe Leu Glu Thr Val His Thr Leu Cys Gly Arg Ile Pro Gln
      165      170      175
Val Phe Leu Lys Gln Ile Glu Lys Thr Met Lys Arg Ala Tyr Glu Lys
      180      185      190
His Val Ile Ile His Val Gly Pro Asn Gln Met His
      195      200

```

&lt;210&gt; 5589

&lt;211&gt; 1327

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5589

```

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ccctccccc caccgtagcg gcgcgcgagc gggccggcg ggcggccgag tttccaaga
120
gataacttca ccaagatgtc cagtgatagg caaaggtccg atgatgagag cccagcacc
180
agcagtggca gttcagatgc ggaccagcga gaccagccg ctccagagcc tgaagaacaa
240
gaggaaagaa aaccttctgc caccagcag aagaaaaaca ccaaactctc tagcaaaacc
300
actgctaagt tatccactag tgctaaaaga attcagaagg agctagctga aataaccctt
360
gatcctcctc ctaattgcag tgctgggcct aaaggagata acatttatga atggagatca
420
actatacttg gtccaccggg ttctgtatat gaaggtggtg tgttttttct ggatatcaca
480
ttttcatcag attatccatt taagccacca aaggttactt tccgcaccag aatctatcac
540
tgcaacatca acagtcaggg agtcatctgt ctggacatcc ttaaagacaa ctggagtccc
600
gctttgacta tttcaaagg tttgtgtct atttgttccc ttttgacaga ctgcaaccct
660
gcggatcctc tggttggaag catagccact cagtatttga ccaacagagc agaacacgac
720

```

aggatagcca gacagtggac caagagatac gcaacataat tcacataatt tgtatgcagt  
 780  
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 840  
 gactttctgtg tatatgttat actgattcta ctctgctttt atccttttga gcctgggaga  
 900  
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 960  
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 1020  
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 1080  
 ctgtatgaag ttataaaagt agctgtagat ggctaggaat tatgtcattt gtattaaacc  
 1140  
 cagatctatt tctgagtatg tggttcatgc tgttgtgaaa aatgttttac cttttacctt  
 1200  
 tgtcagtttg taatgagagg atttcctttt acccttttga gctcagagag cacctgatgt  
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 1320  
 aaaaaaa  
 1327

<210> 5590

<211> 207

<212> PRT

<213> Homo sapiens

<400> 5590

Met	Ser	Ser	Asp	Arg	Gln	Arg	Ser	Asp	Asp	Glu	Ser	Pro	Ser	Thr	Ser
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Ser	Gly	Ser	Ser	Asp	Ala	Asp	Gln	Arg	Asp	Pro	Ala	Ala	Pro	Glu	Pro
			20				25					30			
Glu	Glu	Gln	Glu	Glu	Arg	Lys	Pro	Ser	Ala	Thr	Gln	Gln	Lys	Lys	Asn
		35					40				45				
Thr	Lys	Leu	Ser	Ser	Lys	Thr	Thr	Ala	Lys	Leu	Ser	Thr	Ser	Ala	Lys
	50				55					60					
Arg	Ile	Gln	Lys	Glu	Leu	Ala	Glu	Ile	Thr	Leu	Asp	Pro	Pro	Pro	Asn
65					70				75						80
Cys	Ser	Ala	Gly	Pro	Lys	Gly	Asp	Asn	Ile	Tyr	Glu	Trp	Arg	Ser	Thr
			85					90					95		
Ile	Leu	Gly	Pro	Pro	Gly	Ser	Val	Tyr	Glu	Gly	Gly	Val	Phe	Phe	Leu
		100					105					110			
Asp	Ile	Thr	Phe	Ser	Ser	Asp	Tyr	Pro	Phe	Lys	Pro	Pro	Lys	Val	Thr
	115					120					125				
Phe	Arg	Thr	Arg	Ile	Tyr	His	Cys	Asn	Ile	Asn	Ser	Gln	Gly	Val	Ile
	130					135					140				
Cys	Leu	Asp	Ile	Leu	Lys	Asp	Asn	Trp	Ser	Pro	Ala	Leu	Thr	Ile	Ser
145					150				155					160	
Lys	Val	Leu	Leu	Ser	Ile	Cys	Ser	Leu	Leu	Thr	Asp	Cys	Asn	Pro	Ala
		165						170					175		
Asp	Pro	Leu	Val	Gly	Ser	Ile	Ala	Thr	Gln	Tyr	Leu	Thr	Asn	Arg	Ala
	180						185						190		
Glu	His	Asp	Arg	Ile	Ala	Arg	Gln	Trp	Thr	Lys	Arg	Tyr	Ala	Thr	

195

200

205

&lt;210&gt; 5591

&lt;211&gt; 2194

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5591

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120  
gacgtagccg ccacattcca gttccgcacg cgttgggatt cggatctgca gcgggaagga  
180  
gtgtccatt acaggctctt ccctaaagcc ctgggacagc tgatctccaa gtattctcta  
240  
cgggagctcc acctgtcatt cacgcaaggc ttttggagga cccgatactg ggggccaccc  
300  
ttcctgcagg ctccgtcagg tgcagagctc tgggtctggt tccaagacac tgtcactgat  
360  
gtggataagt cctggaggga gctcagtaat gtctctcag ggatctctg cgcctctctc  
420  
aacttcctcg actccaccaa cacagtcaact cccactgctt ccttcaaacc cctgggtctg  
480  
gccaatgaca ctgaccacta cttctcgcgc tatgtctgtc tgccgcggga ggtggtctgc  
540  
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600  
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4771

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&lt;210&gt; 5592

&lt;211&gt; 580

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5592

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 Arg Trp Asp Ser Asp Leu Gln Arg Glu Gly Val Ser His Tyr Arg Leu  
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 Phe Pro Lys Ala Leu Gly Gln Leu Ile Ser Lys Tyr Ser Leu Arg Glu  
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 Leu His Leu Ser Phe Thr Gln Gly Phe Trp Arg Thr Arg Tyr Trp Gly  
 85 90 95Pro Phe Leu  
 Gln Ala Pro Ser Gly Ala Glu Leu Trp Val Trp Phe  
 100 105 110  
 Gln Asp Thr Val Thr Asp Val Asp Lys Ser Trp Arg Glu Leu Ser Asn  
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Ser Lys Ala Gly Leu Ser Val Leu Leu Lys Ala Asp Arg Leu Phe His
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Thr Ser Tyr His Ser Gln Ala Val His Ile Arg Pro Val Cys Arg Asn
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Ala Arg Cys Thr Ser Ile Ser Trp Glu Leu Arg Gln Thr Leu Ser Val
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Val Phe Asp Ala Phe Ile Thr Gly Gln Gly Lys Lys Asp Trp Ser Leu
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Cys Val Gln Asp Asn Glu Thr Leu Glu Val His Pro Pro Pro Thr Thr
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Gln Leu Lys Trp Lys Arg Pro Pro Glu Asn Glu Ala Pro Pro Val Pro
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Phe Tyr Asn Leu Leu Thr Arg Thr Phe His Ile Glu Glu Pro Arg Thr
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Val Pro Pro Leu

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580

&lt;210&gt; 5593

&lt;211&gt; 3078

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5593

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<211> 296

<212> PRT

<213> Homo sapiens

<400> 5594

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		195					200					205			
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Glu	Ser	Glu	Arg	Ala	Asp	Arg	Ser	Leu	Phe	Val	Gln	Glu	Leu	Leu	Leu
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<211> 1515

<212> DNA

<213> Homo sapiens

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&lt;210&gt; 5596

&lt;211&gt; 299

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5596

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Asn Leu Gly Lys Lys Ile Ser Val Pro Arg Asp Val Met Leu Glu Glu
 35           40           45
Leu Ser Leu Leu Thr Asn Arg Gly Ser Lys Met Phe Lys Leu Arg Gln
 50           55           60
Met Arg Val Glu Lys Phe Ile Tyr Glu Asn His Pro Asp Val Phe Ser
 65           70           75           80
Asp Ser Ser Met Asp His Phe Gln Lys Phe Leu Pro Thr Val Gly Gly
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Gln Leu Gly Thr Ala Gly Gln Gly Phe Ser Tyr Ser Lys Ser Asn Gly
100           105           110
Arg Gly Gly Ser Gln Ala Gly Gly Ser Gly Ser Ala Gly Gln Tyr Gly
115           120           125
Ser Asp Gln Gln His His Leu Gly Ser Gly Ser Gly Ala Gly Gly Thr
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Gly Gly Pro Ala Gly Gln Ala Gly Arg Gly Gly Ala Ala Gly Thr Ala
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Gly Val Gly Glu Thr Gly Ser Gly Asp Gln Ala Gly Gly Glu Gly Lys
165           170           175
His Ile Thr Val Phe Lys Thr Tyr Ile Ser Pro Trp Glu Arg Ala Met
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Gly Val Asp Pro Gln Gln Lys Met Glu Leu Gly Ile Asp Leu Leu Ala
195           200           205
Tyr Gly Ala Lys Ala Glu Leu Pro Lys Tyr Lys Ser Phe Asn Arg Thr
210           215           220
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225           230           235           240
Gln Met Pro Lys Phe Asp Leu Gly Pro Leu Leu Ser Glu Pro Leu Val
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&lt;210&gt; 5597

&lt;211&gt; 2240

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5597

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&lt;211&gt; 4492

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Cys Leu Ala Thr Val Leu Thr Ser Leu Glu Gly Leu Ser Gly Thr Trp
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Gly His Leu Arg Thr Tyr Lys Glu Val Val Ser Val Pro Gln Arg
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Val Pro Phe Ser Pro Gly Leu Phe Ala Asp Gln Ala Glu Ile Leu Leu
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Ser Asn His Tyr Thr Ser Ser Glu Ile Arg Val Phe Gly Ala Pro Glu

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&lt;211&gt; 670

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5601

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<213> Homo sapiens

<400> 5604

Arg Phe Gln Arg Val Leu Tyr Phe Ile Cys Ala Phe Gln Asn Ile Ser  
 1 5 10 15  
 Cys Gly Ile His Tyr Leu Ala Ser Val Phe Met Gly Val Thr Pro His  
 20 25 30  
 His Val Cys Arg Pro Pro Gly Asn Val Ser Gln Val Val Phe His Asn  
 35 40 45  
 His Ser Asn Trp Ser Leu Glu Asp Thr Gly Ala Leu Leu Ser Ser Gly  
 50 55 60  
 Gln Lys Asp Tyr Val Thr Val Gln Leu Gln Asn Gly Glu Ile Trp Glu  
 65 70 75 80  
 Leu Ser Arg Cys Ser Arg Asn Lys Arg Glu Asn Thr Ser Ser Leu Gly  
 85 90 95  
 Tyr Glu Tyr Thr Gly Ser Lys Lys Glu Phe Pro Cys Val Asp Gly Tyr  
 100 105 110  
 Ile Tyr Asp Gln Asn Thr Trp Lys Ser Thr Ala Val Thr Gln Trp Asn  
 115 120 125  
 Leu Val Cys Asp Arg Lys Trp Leu Ala Met Leu Ile Gln Pro Leu Phe  
 130 135 140  
 Met Phe Gly Val Leu Leu Gly Ser Val Thr Phe Gly Tyr Phe Ser Asp  
 145 150 155 160  
 Arg Leu Gly Arg Arg Val Val Leu Trp Ala Thr Ser Ser Ser Met Phe  
 165 170 175  
 Leu Phe Gly Ile Ala Ala Ala Phe Ala Val Asp Tyr Tyr Thr Phe Met  
 180 185 190  
 Ala Ala Arg Phe Phe Leu Ala Met Val Ala Ser Gly Tyr Leu Val Val  
 195 200 205  
 Gly Phe Val Tyr Val Met Glu Phe Ile Gly Met Lys Ser Arg Thr Trp  
 210 215 220  
 Ala Ser Val His Leu His Ser Phe Phe Ala Val Gly Thr Leu Leu Val  
 225 230 235 240  
 Ala Leu Thr Gly Tyr Leu Val Arg Thr Trp Trp Leu Tyr Gln Met Ile  
 245 250 255  
 Leu Ser Thr Val Thr Val Pro Phe Ile Leu Cys Cys Trp Val Leu Pro  
 260 265 270  
 Glu Thr Pro Phe Trp Leu Leu Ser Glu Gly Arg Tyr Glu Glu Ala Gln  
 275 280 285  
 Lys Ile Val Asp Ile Met Ala Lys Trp Asn Arg Ala Ser Ser Cys Lys  
 290 295 300  
 Leu Ser Glu Leu Leu Ser Leu Asp Leu Gln Gly Pro Val Ser Asn Ser  
 305 310 315 320  
 Pro Thr Glu Val Gln Lys His Asn Leu Ser Tyr Leu Phe Tyr Asn Trp  
 325 330 335  
 Ser Ile Thr Lys Arg Thr Leu Thr Val Trp Leu Ile Trp Phe Thr Gly

340 345 350  
 Ser Leu Gly Phe Tyr Ser Phe Ser Leu Asn Ser Val Asn Leu Gly Gly  
 355 360 365  
 Asn Glu Tyr Leu Asn Leu Phe Leu Leu Gly Val Val Glu Ile Pro Ala  
 370 375 380  
 Tyr Thr Phe Val Cys Ile Ala Met Asp Lys Val Gly Arg Arg Thr Val  
 385 390 395 400  
 Leu Ala Tyr Ser Leu Phe Cys Ser Ala Leu Ala Cys Gly Val Val Met  
 405 410 415  
 Val Ile Pro Gln Lys His Tyr Ile Leu Gly Val Val Thr Ala Met Val  
 420 425 430  
 Gly Lys Phe Ala Ile Gly Ala Ala Phe Gly Leu Ile Tyr Leu Tyr Thr  
 435 440 445  
 Ala Glu Leu Tyr Pro Thr Ile Val Arg Ser Leu Ala Val Gly Ser Gly  
 450 455 460  
 Ser Met Val Cys Arg Leu Ala Ser Ile Leu Ala Pro Phe Ser Val Asp  
 465 470 475 480  
 Leu Ser Ser Ile Trp Ile Phe Ile Pro Gln Leu Phe Val Gly Thr Met  
 485 490 495  
 Ala Leu Leu Ser Gly Val Leu Thr Leu Lys Leu Pro Glu Thr Leu Gly  
 500 505 510  
 Lys Arg Leu Ala Thr Thr Trp Glu Glu Ala Ala Lys Leu Glu Ser Glu  
 515 520 525  
 Asn Glu Ser Lys Ser Ser Lys Leu Leu Leu Thr Thr Asn Asn Ser Gly  
 530 535 540  
 Leu Glu Lys Thr Glu Ala Ile Thr Pro Arg Asp Ser Gly Leu Gly Glu  
 545 550 555 560

&lt;210&gt; 5605

&lt;211&gt; 376

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5605

acgcgtgaag gggaaactgat gataaacaca aaaggcaatg ttagatggcg ccaggcactg  
 60  
 cgaggggagac aactgggtc ttggggtaga gcgggaagag gtggtagtga cttcttcagt  
 120  
 catccaggga ggcctctcca gggaggatga cggaacatca gaggaagaa gcaaggagaa  
 180  
 ccagccacac tcagagctgg gaaagagcag caggaagatg ggggcagtga gtgccagggc  
 240  
 tctgcaggga tgggcttgcc tggcaggag caataccaag gaagttagta gggcccgggt  
 300  
 catgccacgg ccttgtaggc agaaccctta agtctctttg tagggacccc ttggtctcc  
 360  
 cctttgaact acgccc  
 376

&lt;210&gt; 5606

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5606

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Met Thr Arg Ala Leu Leu Thr Ser Leu Val Leu Leu Pro Ala Arg Gln
 1           5           10           15
Ala His Pro Cys Arg Ala Leu Ala Leu Thr Ala Pro Ile Phe Leu Leu
      20           25           30
Leu Phe Pro Ser Ser Glu Cys Gly Trp Phe Ser Leu Leu Leu Ser Ser
      35           40           45
Asp Val Pro Ser Ser Ser Leu Glu Arg Pro Pro Trp Met Thr Glu Glu
      50           55           60
Val Thr Thr Thr Ser Ser Arg Ser Thr Pro Arg Pro Ser Val Ser Pro
      65           70           75           80
Ser Gln Cys Leu Ala Pro Ser Asn Ile Ala Phe Cys Val Tyr His Gln
      85           90           95
Phe Pro Phe Thr Arg
      100

```

&lt;210&gt; 5607

&lt;211&gt; 320

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5607

```

gtgcacacgc gaggtatagg ctccagactc ctcaccaaga tgggctatga gtttggaag
60
ggtttgggccc gacacgcgga aggccgggtg gagcccatcc atgctgtggt gttgcctcga
120
gggaagtcgc tggaccagtg tgtggagacc ctgcagaagc agaccagggt tggcaaggct
180
ggcaccaaca agccccccag gtgccgggga agaggggcca ggccctggggg ccgcccagct
240
cctcggaatg tgtttgactt cctcaatgaa aagctgcaag gtcaggctcc tggggcccta
300
caagccgggc ggcctcagca
320

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&lt;210&gt; 5608

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5608

```

Val His Thr Arg Gly Ile Gly Ser Arg Leu Leu Thr Lys Met Gly Tyr
 1           5           10           15
Glu Phe Gly Lys Gly Leu Gly Arg His Ala Glu Gly Arg Val Glu Pro
      20           25           30
Ile His Ala Val Val Leu Pro Arg Gly Lys Ser Leu Asp Gln Cys Val
      35           40           45
Glu Thr Leu Gln Lys Gln Thr Arg Val Gly Lys Ala Gly Thr Asn Lys
      50           55           60
Pro Pro Arg Cys Arg Gly Arg Gly Ala Arg Pro Gly Gly Arg Pro Ala
      65           70           75           80
Pro Arg Asn Val Phe Asp Phe Leu Asn Glu Lys Leu Gln Gly Gln Ala
      85           90           95
Pro Gly Ala Leu Gln Ala Gly Arg Pro Gln

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100

105

&lt;210&gt; 5609

&lt;211&gt; 1843

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5609

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60  
ccagaaagta tagtgcaaac actcagtaga aaagttgcaa ttaagaaatg tacattcaca  
120  
tttaacattt cagtccattc acttttttta aaataaaaat aggacaaatt attcaattac  
180  
ttgtctcaat ttaacaatct tgaaaaagac tggaaggtag cctacagtgt tcagttgaca  
240  
taaaaataga cccgtattga tcatacaaat ctatcatgag aagttaccca gtgagagtga  
300  
gttattgtaa ttctgaatgt actcatcgtg ttcttcactt ctacagaagc atcctcagtg  
360  
agttgtattg tgcgagaaaa tgacaccctt gccacatca ctctccattc catagaggga  
420  
cacaacccta tctagccaaa ccgagaagaa cgcaggcgct tacacaactt ttctcgga  
480  
gtcgagaaaa tccaaaagtg ggctttgggc ttaccttaa taggaatgga atgtaccact  
540  
acgagatggg catcataata aggacattgt tgtttgagcg gggggtgtgc aatcagtata  
600  
aatgaggatg gcggagggaag aggagtgggt actgaaggga ggtggtgcat aataagtga  
660  
cgagctacac aaagctcgag ctacacaaag ctcaggctcc acgggcctcg ccttggctcc  
720  
cagggatgct ctgcagccag cgggcggatg acctgaggtc gggcctgggc ctgtcccttt  
780  
gtgcatcgcg cgtgatttca aattcaaact aagttccaca ccattaggag ttttcacggc  
840  
atgcagtccc agagtgcaaa tggcttgcat atgtgcagtt ttacaggtg gaaggcaaga  
900  
ccatacatct ctcccactt gggcgtgcct cctagtggac agttgtatgc aagaggcggg  
960  
gatgggctcc ctcaggatcc cccaatgtgg gaatggctcc ctgagacttg tgcttcgtgt  
1020  
gcctggggcc cagagttggg tggggggttg ctggtgggag gtgagaaaca agttctggct  
1080  
gccgtcgggc cagcttccca ctgccctcac ctgggagggt gatgccaca ggcaggatgc  
1140  
tctgggctac tgttcacag tcctgcacga gatatttatt cagccacaa gatttaatag  
1200  
atctcttggg agttcatcta ggctattatg tctgtttaaa cattaattct caataagtgc  
1260  
ctgaaagctc ttttgaagc aacctatttg aaggtctgaa ccgcccgtta ccagcaggaa  
1320  
ccaatgcccc ggagagggtc agagcacatg tgctctggtg gttgtcaaat ctctcaccat  
1380

4792

ccatcataag cctctgaac tcctgctgaa atcggccctt tgaacatcct ctaaccctg  
 1440  
 ggaaggcacc cggaccacac ttacctcac cagcagcata tgacaataac attaaatggc  
 1500  
 tctacagcag aggaagatga aagtaaaagt agcaaataca accaatggcc ttcccatagc  
 1560  
 tcacagaact cctgagcaga agctgagcag ggaagaaatg gtgtgtagtt tcagggtgtc  
 1620  
 tggaggtgcc accatttctc cccatttgat gtcagagagg ctttacaaaa aaataaggca  
 1680  
 acagctctta aggagattct gtatatattga aattagacgc aatgacaggt ttcgctccca  
 1740  
 aantatagtt ttagaatata gtctgatatg acaaagtagg gattttttaa gcctaacatt  
 1800  
 ttatttcctt gctggggatc agttagtaaa gaaggaggaa ttc  
 1843

<210> 5610  
 <211> 153  
 <212> PRT  
 <213> Homo sapiens

<400> 5610  
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 Phe Thr Ala Cys Ser Ser Arg Val Gln Met Ala Cys Ile Cys Ala Val  
 20 25 30  
 Phe Thr Gly Gly Arg Gln Asp His Thr Ser Leu Pro His Trp Ala Cys  
 35 40 45  
 Leu Leu Val Asp Ser Cys Met Gln Glu Ala Val Met Gly Ser Leu Arg  
 50 55 60  
 Ile Pro Gln Cys Gly Asn Gly Pro Leu Arg Leu Val Leu Arg Val Pro  
 65 70 75 80  
 Gly Ala Gln Ser Trp Val Gly Gly Cys Trp Trp Glu Val Arg Asn Lys  
 85 90 95  
 Phe Trp Leu Pro Ser Gly Gln Leu Pro Thr Ala Leu Thr Trp Glu Val  
 100 105 110  
 Asp Ala His Arg Gln Asp Ala Leu Gly Tyr Cys Cys Thr Val Leu His  
 115 120 125  
 Glu Ile Phe Ile Gln Pro Thr Arg Phe Asn Arg Ser Leu Gly Ser Ser  
 130 135 140  
 Ser Arg Leu Leu Cys Leu Phe Lys His  
 145 150

<210> 5611  
 <211> 1152  
 <212> DNA  
 <213> Homo sapiens

<400> 5611  
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 120

cgggtccttg cgcctcagag cccggccag gccgcggaac ggtgatgctc gggccggagc  
 180  
 ggcgagcgcg gatccctgcy tcccgcctgaa aatgtgtgct tgacatgcaa gtcagtggg  
 240  
 gcagagaccc gtggattgct gtgccctgcc ctccggacct ggatcatgaa ggtgttgga  
 300  
 agaagcttct tctgggtgct gtttcccgtc cttccctggg cgggtgcaggc tgtggagcac  
 360  
 gaggaggtgg cgcagcgtgt gatcaaacctg caccgcgggc gaggggtggc tgccatgcag  
 420  
 agccggcagt ggggtccggga cagctgcagg aagctctcag ggcttctccg ccagaagaat  
 480  
 gcagttctga acaaacctgaa aactgcaatt ggagcagtgag agaaagacgt gggcctgtcg  
 540  
 gatgaagaga aactgtttca ggtgcacacg tttgaaattt tccagaaaga gctgaatgaa  
 600  
 agtgaattt cgtgtttcca agctgtctac ggactgcaga gagccctgca gggggattac  
 660  
 aaagatgtcg tgaacatgaa ggagagcagc cggcagcgcc tggaggccct gagagaggct  
 720  
 gcaataaagg aagaacaga atatatggaa cttctggcag cagaaaaaca tcaagttgaa  
 780  
 gcccttaaaa atatgcaaca tcaaaaccaa agtttatcca tgcttgacga gattcttgaa  
 840  
 gatgtaagaa aggcagcgga tcgtctggag gaagagatag aggaacatgc ttttgacgac  
 900  
 aataaatcag tcaagggggg caattttgag gcagttctga ggggtggagga agaagaggcc  
 960  
 aattctaagc aaaatataac aaaacgagaa gtggaggatg acttggttct tagcatgctg  
 1020  
 attgactccc agaacaacca gtatatattg accaagccca gagattcaac catcccacgt  
 1080  
 gcagatcacc actttataaa ggacattggt accataggaa tgctgtcttt gccttgaggc  
 1140  
 tggcgatgta ca  
 1152

&lt;210&gt; 5612

&lt;211&gt; 289

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5612

Met Lys Val Leu Gly Arg Ser Phe Phe Trp Val Leu Phe Pro Val Leu  
 1 5 10 15  
 Pro Trp Ala Val Gln Ala Val Glu His Glu Glu Val Ala Gln Arg Val  
 20 25 30  
 Ile Lys Leu His Arg Gly Arg Gly Val Ala Ala Met Gln Ser Arg Gln  
 35 40 45  
 Trp Val Arg Asp Ser Cys Arg Lys Leu Ser Gly Leu Leu Arg Gln Lys  
 50 55 60  
 Asn Ala Val Leu Asn Lys Leu Lys Thr Ala Ile Gly Ala Val Glu Lys  
 65 70 75 80  
 Asp Val Gly Leu Ser Asp Glu Glu Lys Leu Phe Gln Val His Thr Phe

85										90				95			
Glu	Ile	Phe	Gln	Lys	Glu	Leu	Asn	Glu	Ser	Glu	Asn	Ser	Val	Phe	Gln		
100				105				110									
Ala	Val	Tyr	Gly	Leu	Gln	Arg	Ala	Leu	Gln	Gly	Asp	Tyr	Lys	Asp	Val		
115				120				125									
Val	Asn	Met	Lys	Glu	Ser	Ser	Arg	Gln	Arg	Leu	Glu	Ala	Leu	Arg	Glu		
130				135				140									
Ala	Ala	Ile	Lys	Glu	Glu	Thr	Glu	Tyr	Met	Glu	Leu	Leu	Ala	Ala	Glu		
145				150				155				160					
Lys	His	Gln	Val	Glu	Ala	Leu	Lys	Asn	Met	Gln	His	Gln	Asn	Gln	Ser		
165				170				175									
Leu	Ser	Met	Leu	Asp	Glu	Ile	Leu	Glu	Asp	Val	Arg	Lys	Ala	Ala	Asp		
180				185				190									
Arg	Leu	Glu	Glu	Glu	Ile	Glu	Glu	His	Ala	Phe	Asp	Asp	Asn	Lys	Ser		
195				200				205									
Val	Lys	Gly	Val	Asn	Phe	Glu	Ala	Val	Leu	Arg	Val	Glu	Glu	Glu	Glu		
210				215				220									
Ala	Asn	Ser	Lys	Gln	Asn	Ile	Thr	Lys	Arg	Glu	Val	Glu	Asp	Asp	Leu		
225				230				235				240					
Val	Leu	Ser	Met	Leu	Ile	Asp	Ser	Gln	Asn	Asn	Gln	Tyr	Ile	Leu	Thr		
245				250				255									
Lys	Pro	Arg	Asp	Ser	Thr	Ile	Pro	Arg	Ala	Asp	His	His	Phe	Ile	Lys		
260				265				270									
Asp	Ile	Val	Thr	Ile	Gly	Met	Leu	Ser	Leu	Pro	Cys	Gly	Trp	Arg	Cys		
275				280				285									
Thr																	

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<210> 5613
<211> 1679
<212> DNA
<213> Homo sapiens
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120
ctcagacctt gtgggggtcaa gtcggcggtg gaggccctag gctcagcctg tggggaccgg
180
cgggggactcg gcctggggcag tcctggggaga agctgagccg gctctgcctg aagccagtcc
240
tccttgtcgc aggtgctggt ggacagcgcg gagggagggt ccctcgctgc ggcgggcgag
300
ctggccgctc agaagcgcg aacagagactg cgcaaattcc gggagctgca cctgatgcgg
360
aatgaagctc gtaaattaaa tcaccaggaa gttgtggaag aagataaaag actaaaatta
420
cctgcaaatt ggggaagccaa aaaagctcgt ttggagtggt aactaaagga agagggaaaag
480
aaaaaggaat gtgcggcgaag aggagaagac tatgagaaag tgaagtgtgt ggagatcagt
540
gcagaagatg cagaaagatg ggagagggaaa aagaagagga aaaaccctga tctgggattt
600

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tcagattatg ctgctgcccc gttacgccag tatcatcggt tgaccaagca gatcaaacct  
 660  
 gacatggaaa catatgagag actgagagaa aaacatggag aagagttttt cccaacatcc  
 720  
 aatagtcttc ttcattggaac acatgtgcct tccacagagg aaattgacag gatggtcata  
 780  
 gatctggaaa aacagattga aaaacgagac aaatatagcc ggagagctcc ttataatgat  
 840  
 gatgcagata tcgactacat taatgaaagg aatgccaaat tcaacaagaa agctgaaaga  
 900  
 ttctatggga aatacacagc tgaaattaaa cagaatttgg aaagaggaaac agctgtctaa  
 960  
 tcccttcaag aactgtttat agaagcttga gaatggggta aaaatttctg ctacaaaaat  
 1020  
 caagtctctt ttgaaatttt atcagtaatc cagaatttag tagtccatgc cttctcactc  
 1080  
 agcatttaga aataaaaaatg tgggtttctta aacgtatata ctttcatgta tatttcaca  
 1140  
 tttttgtgct tggatataag atgtatttct tgtagtgaag ttgttttgta atctactttg  
 1200  
 tatacattct aattatatta tttttctatg tattttaaat gtatatggct gtttaattct  
 1260  
 tgaagcattt tgggcttaag attgccagca gcacacatca gatgcagtca ttgttgctat  
 1320  
 cagtgtggaa ttgatagag tctagactcg ggccacttgg agttgtgtac tccaaagcta  
 1380  
 aggacagtga tgaggaagat ggcagtggcc accggaggac tggagcagtc cctcctcatg  
 1440  
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 1500  
 ttcggagaga ggctggagtg tgctaccgac gtcgaatata catgcagtcg gttagaggct  
 1560  
 ggagtgtgct accgagctcg aatatccatg cagactagaa aaccattat ctcagcccaa  
 1620  
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 1679

<210> 5614  
 <211> 242  
 <212> PRT  
 <213> Homo sapiens

<400> 5614  
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 Ser Leu Ala Ala Ala Glu Leu Ala Ala Gln Lys Arg Glu Gln Arg  
 20 25 30  
 Leu Arg Lys Phe Arg Glu Leu His Leu Met Arg Asn Glu Ala Arg Lys  
 35 40 45  
 Leu Asn His Gln Glu Val Val Glu Glu Asp Lys Arg Leu Lys Leu Pro  
 50 55 60  
 Ala Asn Trp Glu Ala Lys Lys Ala Arg Leu Glu Trp Glu Leu Lys Glu  
 65 70 75 80  
 Glu Glu Lys Lys Lys Glu Cys Ala Ala Arg Gly Glu Asp Tyr Glu Lys

85										90					95				
Val	Lys	Leu	Leu	Glu	Ile	Ser	Ala	Glu	Asp	Ala	Glu	Arg	Trp	Glu	Arg				
100				105				110											
Lys	Lys	Lys	Arg	Lys	Asn	Pro	Asp	Leu	Gly	Phe	Ser	Asp	Tyr	Ala	Ala				
115				120				125											
Ala	Gln	Leu	Arg	Gln	Tyr	His	Arg	Leu	Thr	Lys	Gln	Ile	Lys	Pro	Asp				
130				135				140											
Met	Glu	Thr	Tyr	Glu	Arg	Leu	Arg	Glu	Lys	His	Gly	Glu	Glu	Phe	Phe				
145				150				155				160							
Pro	Thr	Ser	Asn	Ser	Leu	Leu	His	Gly	Thr	His	Val	Pro	Ser	Thr	Glu				
165				170				175											
Glu	Ile	Asp	Arg	Met	Val	Ile	Asp	Leu	Glu	Lys	Gln	Ile	Glu	Lys	Arg				
180				185				190											
Asp	Lys	Tyr	Ser	Arg	Arg	Arg	Pro	Tyr	Asn	Asp	Asp	Ala	Asp	Ile	Asp				
195				200				205											
Tyr	Ile	Asn	Glu	Arg	Asn	Ala	Lys	Phe	Asn	Lys	Lys	Ala	Glu	Arg	Phe				
210				215				220											
Tyr	Gly	Lys	Tyr	Thr	Ala	Glu	Ile	Lys	Gln	Asn	Leu	Glu	Arg	Gly	Thr				
225				230				235				240							
Ala		Val																	

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<210> 5615
<211> 1522
<212> DNA
<213> Homo sapiens
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120
ccacagactg ttccttcaca accgtccagt agtactgtcc ctctccacc acacagacct
180
ctttatcagc ctatgcagcc tcatcctcag catttggtt ctatgggttt tgatccaagg
240
tggctcatga tgcagtecta catggatcct cgaatgatgt caggaagacc tgctatggat
300
attccaccca ttcatcctgg aatgattcct cctaaacat taatgagaag agaccagatg
360
gaagggtcac cgaacagttc tgagtcattt gagcatatag ctgcgatctgc aagagatcac
420
gcaatttccc tttctgagcc tcgtatgctg tgggggtcag atccctatcc tcatgctgag
480
cctcaacaag caactactcc caaagcaaca gaagagcctg aggatgtaag gtctgaagct
540
gcgttgacc aggaacagat tactgctgct tattctgtag aacataatca attagaggct
600
cacccaaagg cagactttat cagagaatca agtgaggcac aagtacaaaa gtttttaagc
660
agatctgtgg aagatgttag acctcaccat actgatgcaa ataatcagtc tgcttgtttt
720
gaagcacctg atcaaaagac cttatccact cctcaagagg agcggatttc agctgtagaa
780

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 840  
 gagcagagaa gtgaaccatc tgcaggcatt cctaaagtaa ccagcagatg cattgattca  
 900  
 aaagaaccaa tagaaaggcc agaggagaaa ccaaaaaagg aaggctttat acgatcttct  
 960  
 gaaggaccaa aacctgaaaa agtatataaa tctaaatcag aaactcgttg gggcccacga  
 1020  
 ccaagctcta acagaaggga agaagttaat gatagacctg tgagaagatc aggtcccat  
 1080  
 aaaaaacctg tacttagaga tatgaaagag gaacgggaac agaggaagga gaaagaagga  
 1140  
 gaaaaggccg aaaaggtcac tgaaaaagta gttgtaaagc ctgaaaagac ggaaaagaag  
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 1260  
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 1320  
 caaaaacat ctcaggatac tgagaagcct ctggaacctg tgagtactgt tcaggtagag  
 1380  
 cctgcagtta agactgtaaa ccaacagact atggcagcac cagtagtcaa agaaaaagaa  
 1440  
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 gaaaaagaac tacaaaaaaa aa  
 1522

&lt;210&gt; 5616

&lt;211&gt; 507

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5616

Pro Ala Val Leu Ser Gly Tyr Phe Lys Gln Phe Gln Lys Ser Leu Pro  
 1 5 10 15  
 Pro Arg Phe Gln Arg Gln Gln Glu Gln Met Lys Gln Gln Gln Trp Gln  
 20 25 30  
 Gln Gln Gln Gln Gln Gly Val Leu Pro Gln Thr Val Pro Ser Gln Pro  
 35 40 45  
 Ser Ser Ser Thr Val Pro Pro Pro Pro His Arg Pro Leu Tyr Gln Pro  
 50 55 60  
 Met Gln Pro His Pro Gln His Leu Ala Ser Met Gly Phe Asp Pro Arg  
 65 70 75 80  
 Trp Leu Met Met Gln Ser Tyr Met Asp Pro Arg Met Met Ser Gly Arg  
 85 90 95  
 Pro Ala Met Asp Ile Pro Pro Ile His Pro Gly Met Ile Pro Pro Lys  
 100 105 110  
 Pro Leu Met Arg Arg Asp Gln Met Glu Gly Ser Pro Asn Ser Ser Glu  
 115 120 125  
 Ser Phe Glu His Ile Ala Arg Ser Ala Arg Asp His Ala Ile Ser Leu  
 130 135 140  
 Ser Glu Pro Arg Met Leu Trp Gly Ser Asp Pro Tyr Pro His Ala Glu  
 145 150 155 160  
 Pro Gln Gln Ala Thr Thr Pro Lys Ala Thr Glu Glu Pro Glu Asp Val

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      165      170      175
Arg Ser Glu Ala Ala Leu Asp Gln Glu Gln Ile Thr Ala Ala Tyr Ser
      180      185      190
Val Glu His Asn Gln Leu Glu Ala His Pro Lys Ala Asp Phe Ile Arg
      195      200      205
Glu Ser Ser Glu Ala Gln Val Gln Lys Phe Leu Ser Arg Ser Val Glu
      210      215      220
Asp Val Arg Pro His His Thr Asp Ala Asn Asn Gln Ser Ala Cys Phe
      225      230      235      240
Glu Ala Pro Asp Gln Lys Thr Leu Ser Thr Pro Gln Glu Glu Arg Ile
      245      250      255
Ser Ala Val Glu Ser Gln Pro Ser Arg Lys Arg Ser Val Ser His Gly
      260      265      270
Ser Asn His Thr Gln Lys Pro Asp Glu Gln Arg Ser Glu Pro Ser Ala
      275      280      285
Gly Ile Pro Lys Val Thr Ser Arg Cys Ile Asp Ser Lys Glu Pro Ile
      290      295      300
Glu Arg Pro Glu Glu Lys Pro Lys Lys Glu Gly Phe Ile Arg Ser Ser
      305      310      315      320
Glu Gly Pro Lys Pro Glu Lys Val Tyr Lys Ser Lys Ser Glu Thr Arg
      325      330      335
Trp Gly Pro Arg Pro Ser Ser Asn Arg Arg Glu Glu Val Asn Asp Arg
      340      345      350
Pro Val Arg Arg Ser Gly Pro Ile Lys Lys Pro Val Leu Arg Asp Met
      355      360      365
Lys Glu Glu Arg Glu Gln Arg Lys Glu Lys Glu Gly Glu Lys Ala Glu
      370      375      380
Lys Val Thr Glu Lys Val Val Val Lys Pro Glu Lys Thr Glu Lys Lys
      385      390      395      400
Asp Leu Pro Pro Pro Pro Pro Pro Gln Pro Pro Ala Pro Ile Gln
      405      410      415
Pro Gln Ser Val Pro Pro Pro Ile Gln Pro Glu Ala Glu Lys Phe Pro
      420      425      430
Ser Thr Glu Thr Ala Thr Leu Ala Gln Lys Pro Ser Gln Asp Thr Glu
      435      440      445
Lys Pro Leu Glu Pro Val Ser Thr Val Gln Val Glu Pro Ala Val Lys
      450      455      460
Thr Val Asn Gln Gln Thr Met Ala Ala Pro Val Val Lys Glu Lys Glu
      465      470      475      480
Leu Gln Lys Lys Glu Arg Lys Gln Glu Lys Glu Lys Glu Leu Glu Arg
      485      490      495
Gln Lys Glu Lys Glu Lys Glu Leu Gln Lys Lys
      500      505

```

&lt;210&gt; 5617

&lt;211&gt; 3480

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5617

nactcaagct gaatgcttta ttgtaatctc ccaaatcctg tggatagcgc ttaaagatta  
60

aataagtttt cgtagggttat actatcattt ttttttctga cttttagaaa aaaaatgac  
120



atttacttga ttttttttaa gttgtatttt taatttgaga ggatttcaca tgaactgtaa  
180  
tgtttgtgtt ttcagccagt gcacaaagac tctattagcc ttttcatggc acatgttcac  
240  
accactgtaa atgaaatgag taccagatat taccagaatg agagaagaca caactatacc  
300  
accccaaaga gttttctaga acaaatatca ctgtttaaga acctgttgaa gaagaagcaa  
360  
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420  
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480  
agaaatcatg atgccgaagc tctgatcaca aagatcggcc ttcagacgga gaaagtgagc  
540  
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600  
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660  
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720  
aaccctccca tcgcagttac caatgttact gcagccgtga tggctcttct ggctcctcgg  
780  
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840  
gattttttgc aagcattaat taactatgac aaagagcaca ttccagagaa ctgtctaaaa  
900  
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960  
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1140  
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1200  
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1320  
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1380  
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1440  
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1860  
ccagatttgg agaaacttaa gttggtattg acaaagcacc aaaatgattt taaaattgag  
1920  
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1980  
gatgacacca aactggtaga gagattggag gcaacaaaga ccaccgtggc agagatagag  
2040  
cacaagtgta ttgaagccaa agaaaatgaa agaaaaatca acgagggccg agaatgttac  
2100  
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2160  
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2280  
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2580  
gaaaaattac ctcaagaatg gaagaagaaa agtttaatac agaagctgat tcttctgaga  
2640  
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2700  
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2760  
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2820  
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2880  
caagggtcagg agacggtggc agaagtggcc ctggagaaag ctcccaaagg aggacactgg  
2940  
gtcatcctcc aaaaatttca ttggttagcc aagtggctag gaaccttgga gaagctcctt  
3000  
gaaagattca gccaaaggaag ccacagagat tacagggttt tcatgagtgc tgagtctgca  
3060  
cctacaccag atgagcatat catccctcaa ggactcctgg aaaattccat taagatcact  
3120  
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3180  
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3240  
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3300  
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3360

gattcctaag accagtaaat atatttcagt ctcaccctaa cattaagaaa acttcagcta  
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<210> 5618

<211> 1003

<212> PRT

<213> Homo sapiens

<400> 5618

His	Lys	Asp	Ser	Ile	Ser	Leu	Phe	Met	Ala	His	Val	His	Thr	Thr	Val
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Asn	Glu	Met	Ser	Thr	Arg	Tyr	Tyr	Gln	Asn	Glu	Arg	Arg	His	Asn	Tyr
			20					25					30		
Thr	Thr	Pro	Lys	Ser	Phe	Leu	Glu	Gln	Ile	Ser	Leu	Phe	Lys	Asn	Leu
		35				40						45			
Leu	Lys	Lys	Lys	Gln	Asn	Glu	Val	Ser	Glu	Lys	Lys	Glu	Arg	Leu	Val
	50				55						60				
Asn	Gly	Ile	Gln	Lys	Leu	Lys	Thr	Thr	Ala	Ser	Gln	Val	Gly	Asp	Leu
65				70					75					80	
Lys	Ala	Arg	Leu	Ala	Ser	Gln	Glu	Ala	Glu	Leu	Gln	Leu	Arg	Asn	His
			85					90						95	
Asp	Ala	Glu	Ala	Leu	Ile	Thr	Lys	Ile	Gly	Leu	Gln	Thr	Glu	Lys	Val
		100					105						110		
Ser	Arg	Glu	Lys	Thr	Ile	Ala	Asp	Ala	Glu	Glu	Arg	Lys	Val	Thr	Ala
		115				120					125				
Ile	Gln	Thr	Glu	Val	Phe	Gln	Lys	Gln	Arg	Glu	Cys	Glu	Ala	Asp	Leu
	130					135					140				
Leu	Lys	Ala	Glu	Pro	Ala	Leu	Val	Ala	Ala	Thr	Ala	Ala	Leu	Asn	Thr
145				150					155					160	
Leu	Asn	Arg	Val	Asn	Leu	Ser	Glu	Leu	Lys	Ala	Phe	Pro	Asn	Pro	Pro
			165					170					175		
Ile	Ala	Val	Thr	Asn	Val	Thr	Ala	Ala	Val	Met	Val	Leu	Leu	Ala	Pro
		180					185						190		
Arg	Gly	Arg	Val	Pro	Lys	Asp	Arg	Ser	Trp	Lys	Ala	Ala	Lys	Val	Phe
		195				200					205				
Met	Gly	Lys	Val	Asp	Asp	Phe	Leu	Gln	Ala	Leu	Ile	Asn	Tyr	Asp	Lys
	210				215						220				
Glu	His	Ile	Pro	Glu	Asn	Cys	Leu	Lys	Val	Val	Asn	Glu	His	Tyr	Leu
225				230					235					240	
Lys	Asp	Pro	Glu	Phe	Asn	Pro	Asn	Leu	Ile	Arg	Thr	Lys	Ser	Phe	Ala
			245						250					255	
Ala	Ala	Gly	Leu	Cys	Ala	Trp	Val	Ile	Asn	Ile	Ile	Lys	Phe	Tyr	Glu
		260					265						270		
Val	Tyr	Cys	Asp	Val	Glu	Pro	Lys	Arg	Gln	Ala	Leu	Ala	Gln	Ala	Asn
	275					280					285				
Leu	Glu	Leu	Ala	Ala	Ala	Thr	Glu	Lys	Leu	Glu	Ala	Ile	Arg	Lys	Lys
	290					295					300				
Leu	Val	Val	Ser	Ala	Asn	Tyr	Asp	Ile	Glu	Lys	Ser	Glu	Lys	Ile	Arg
305				310					315					320	
Trp	Gly	Gln	Ser	Ile	Lys	Ser	Phe	Glu	Ala	Gln	Glu	Lys	Thr	Leu	Cys
			325					330					335		
Gly	Asp	Val	Leu	Leu	Thr	Ala	Ala	Phe	Val	Ser	Tyr	Val	Gly	Pro	Phe

```

      340      345      350
Thr Arg Gln Tyr Arg Gln Glu Leu Val His Cys Lys Trp Val Pro Phe
      355      360      365
Leu Gln Gln Lys Val Ser Ile Pro Leu Thr Glu Gly Leu Asp Leu Ile
      370      375      380
Ser Met Leu Thr Asp Asp Ala Thr Ile Ala Ala Trp Asn Asn Glu Gly
      385      390      395      400
Leu Pro Ser Asp Arg Met Ser Thr Glu Asn Ala Ala Ile Leu Thr His
      405      410      415
Cys Glu Arg Trp Pro Leu Val Ile Asp Pro Gln Gln Gln Gly Ile Lys
      420      425      430
Trp Ile Lys Asn Lys Tyr Gly Met Asp Leu Lys Val Thr His Leu Gly
      435      440      445
Gln Lys Gly Phe Leu Asn Ala Ile Glu Thr Ala Leu Ala Phe Gly Asp
      450      455      460
Val Ile Leu Ile Glu Asn Leu Glu Glu Thr Ile Asp Pro Val Leu Asp
      465      470      475      480
Pro Leu Leu Gly Arg Asn Thr Ile Lys Lys Gly Lys Tyr Ile Arg Ile
      485      490      495
Gly Asp Lys Glu Cys Glu Phe Asn Lys Asn Phe Arg Leu Ile Leu His
      500      505      510
Thr Lys Leu Ala Asn Pro His Tyr Lys Pro Glu Leu Gln Ala Gln Thr
      515      520      525
Thr Leu Leu Asn Phe Thr Val Thr Glu Asp Gly Leu Glu Ala Gln Leu
      530      535      540
Leu Ala Glu Val Val Ser Ile Glu Arg Pro Asp Leu Glu Lys Leu Lys
      545      550      555      560
Leu Val Leu Thr Lys His Gln Asn Asp Phe Lys Ile Glu Leu Lys Tyr
      565      570      575
Leu Glu Asp Asp Leu Leu Arg Leu Ser Ala Ala Glu Gly Ser Phe
      580      585      590
Leu Asp Asp Thr Lys Leu Val Glu Arg Leu Glu Ala Thr Lys Thr Thr
      595      600      605
Val Ala Glu Ile Glu His Lys Val Ile Glu Ala Lys Glu Asn Glu Arg
      610      615      620
Lys Ile Asn Glu Ala Arg Glu Cys Tyr Arg Pro Val Ala Ala Arg Ala
      625      630      635      640
Ser Leu Leu Tyr Phe Val Ile Asn Asp Leu Gln Lys Ile Asn Pro Leu
      645      650      655
Tyr Gln Phe Ser Leu Lys Ala Phe Asn Val Leu Phe His Arg Ala Ile
      660      665      670
Glu Gln Ala Asp Lys Val Glu Asp Met Gln Gly Arg Ile Ser Ile Leu
      675      680      685
Met Glu Ser Ile Thr His Ala Val Phe Leu Tyr Thr Ser Gln Ala Leu
      690      695      700
Phe Glu Lys Asp Lys Leu Thr Phe Leu Ser Gln Met Ala Phe Gln Ile
      705      710      715      720
Leu Leu Arg Lys Lys Glu Ile Asp Pro Leu Glu Leu Asp Phe Leu Leu
      725      730      735
Arg Phe Thr Val Glu His Thr His Leu Ser Pro Val Asp Phe Leu Thr
      740      745      750
Ser Gln Ser Trp Ser Ala Ile Lys Ala Ile Ala Val Met Glu Glu Phe
      755      760      765
Arg Gly Ile Asp Arg Asp Val Glu Gly Ser Ala Lys Gln Trp Arg Lys

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      770      775      780
Trp Val Glu Ser Glu Cys Pro Glu Lys Glu Lys Leu Pro Gln Glu Trp
785      790      795      800
Lys Lys Lys Ser Leu Ile Gln Lys Leu Ile Leu Leu Arg Ala Met Arg
      805      810      815
Pro Asp Arg Met Thr Tyr Ala Leu Arg Asn Phe Val Glu Glu Lys Leu
      820      825      830
Gly Ala Lys Tyr Val Glu Arg Thr Arg Leu Asp Leu Val Lys Ala Phe
      835      840      845
Glu Glu Ser Ser Pro Ala Thr Pro Ile Phe Phe Ile Leu Ser Pro Gly
      850      855      860
Val Asp Ala Leu Lys Asp Leu Glu Ile Leu Gly Lys Arg Leu Gly Phe
865      870      875      880
Thr Ile Asp Ser Gly Lys Phe His Asn Val Ser Leu Gly Gln Gly Gln
      885      890      895
Glu Thr Val Ala Glu Val Ala Leu Glu Lys Ala Ser Lys Gly Gly His
      900      905      910
Trp Val Ile Leu Gln Asn Val His Leu Val Ala Lys Trp Leu Gly Thr
      915      920      925
Leu Glu Lys Leu Leu Glu Arg Phe Ser Gln Gly Ser His Arg Asp Tyr
      930      935      940
Arg Val Phe Met Ser Ala Glu Ser Ala Pro Thr Pro Asp Glu His Ile
945      950      955      960
Ile Pro Gln Gly Leu Leu Glu Asn Ser Ile Lys Ile Thr Asn Glu Pro
      965      970      975
Pro Thr Gly Met Leu Ala Asn Leu His Ala Ala Leu Tyr Asn Phe Asp
      980      985      990
Gln Val Arg Lys Arg Ser Arg Leu Gly Arg Gln
      995      1000

```

&lt;210&gt; 5619

&lt;211&gt; 1219

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5619

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60
tagccctacc ggactacgag tatctggctc agcgacatgt cctcacctac atggaggatg
120
cagtgtgcc gctgctagaa aacaggaag atattagcca atatggaatt gccaggttct
180
tcactgaata ttttaacagt gtatgccagg gaacacacat tctctttcga gaattcagct
240
tcgtccaagc cccccccac aatagggtat catttttacg ggccttctgg agatgcttcc
300
gaactgtggg caaaaatggc gatttgctga ccatgaaaga atatcactgt ttgctgcaat
360
tactgtgtcc tgatttcccg ctggagctca ctcagaaagc agccaggatt gtgctcatgg
420
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480
tttactactc agaattctcg gacagtgtgg ctgccatcta tgaggacctg ctgtcaggca
540

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 600  
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 720  
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 780  
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 840  
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 900  
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 960  
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 1020  
 aacatgaaac cacctcccca tagcagaagc gccccagccc tcctcagaga accccagctc  
 1080  
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 1140  
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 1219

&lt;210&gt; 5620

&lt;211&gt; 333

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5620

Met Leu Ser Pro Glu Arg Leu Ala Leu Pro Asp Tyr Glu Tyr Leu Ala  
 1 5 10 15  
 Gln Arg His Val Leu Thr Tyr Met Glu Asp Ala Val Cys Gln Leu Leu  
 20 25 30  
 Glu Asn Arg Glu Asp Ile Ser Gln Tyr Gly Ile Ala Arg Phe Phe Thr  
 35 40 45  
 Glu Tyr Phe Asn Ser Val Cys Gln Gly Thr His Ile Leu Phe Arg Glu  
 50 55 60  
 Phe Ser Phe Val Gln Ala Thr Pro His Asn Arg Val Ser Phe Leu Arg  
 65 70 75 80  
 Ala Phe Trp Arg Cys Phe Arg Thr Val Gly Lys Asn Gly Asp Leu Leu  
 85 90 95  
 Thr Met Lys Glu Tyr His Cys Leu Leu Gln Leu Leu Cys Pro Asp Phe  
 100 105 110  
 Pro Leu Glu Leu Thr Gln Lys Ala Ala Arg Ile Val Leu Met Asp Asp  
 115 120 125  
 Ala Met Asp Cys Leu Met Ser Phe Ser Asp Phe Leu Phe Ala Phe Gln  
 130 135 140  
 Ile Gln Phe Tyr Tyr Ser Glu Phe Leu Asp Ser Val Ala Ala Ile Tyr  
 145 150 155 160  
 Glu Asp Leu Leu Ser Gly Lys Asn Pro Asn Thr Val Ile Val Pro Thr  
 165 170 175  
 Ser Ser Ser Gly Gln His Arg Gln Arg Pro Ala Leu Gly Gly Ala Gly

```

      180      185      190
Thr Leu Glu Gly Val Glu Ala Ser Leu Phe Tyr Gln Cys Leu Glu Asn
      195      200      205
Leu Cys Asp Arg His Lys Tyr Ser Cys Pro Pro Pro Ala Leu Val Lys
      210      215      220
Glu Ala Leu Ser Asn Val Gln Arg Leu Thr Phe Tyr Gly Phe Leu Met
      225      230      235      240
Ala Leu Ser Lys His Arg Gly Ile Asn Gln Ala Leu Gly Lys Ser Glu
      245      250      255
Leu Ser Ser Arg Gln Pro Leu Leu Pro His Asn Thr Gly Ser Ser Trp
      260      265      270
Pro Leu Leu Ala Thr Arg Leu Gln Arg Gly Arg Gly Ile Thr Ile Ser
      275      280      285
Ala Leu Thr Ser Gln Gly Arg Thr Gln Ser Gln Gly Ala Gly Ile Trp
      290      295      300
Arg Gln Asn Met Ala Leu Thr His Ser His Gly Arg Gly Gln Pro Ser
      305      310      315      320
Leu Pro Ala Ala Leu Pro Gln His Glu Thr Thr Ser Pro
      325      330

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<210> 5621  
 <211> 456  
 <212> DNA  
 <213> Homo sapiens

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<400> 5621
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gccggccggg ctcacatggt ttgtacaata aatacatctg tggggcgggc tctccgcagc
120
cggaagggc caccgccacg gttcagtcga gcttcgggc tccagcttc atggggccct
180
tgccacactt cctctcggcg cgtttggcct ccatctcccg ccgcgcgtcc tcgcgttct
240
tccgggccag ctcagccttg acctgtcctg ggtgctggga cgtgcagaca gggtagcgaa
300
ggggtcgccc ttgtcgctgg actctgggcc accccagtta tactcgctgg ccagccgtgt
360
accgtcagga ggtggctect gggagcttgg ctgaaccctg ggcggtggcc cttcccggt
420
gcggagagcc cgcccacag atgtatttat tgtaca
456

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<210> 5622  
 <211> 82  
 <212> PRT  
 <213> Homo sapiens

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<400> 5622
Met Ala Trp Leu Gly Arg Pro Gly Ser His Gly Leu Tyr Asn Lys Tyr
1      5      10      15
Ile Cys Gly Ala Gly Ser Pro Gln Pro Gly Arg Ala Thr Ala Thr Val
20      25      30
Gln Ser Ser Phe Arg Ala Pro Ser Phe Met Gly Pro Leu Ala Thr Phe

```

```

      35          40          45
Leu Ser Ala Arg Leu Ala Ser Ile Ser Arg Arg Arg Ser Ser Arg Phe
      50          55          60
Phe Arg Ala Ser Ser Ala Leu Thr Cys Pro Gly Cys Trp Asp Val Gln
      65          70          75          80
Thr Gly

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<210> 5623  
 <211> 357  
 <212> DNA  
 <213> Homo sapiens

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<400> 5623
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60
gcctttgatg attttcaaga gagttgtgct atgatgtggc aaaagtatgc aggaagcagg
120
cggtcaatgc ctctgggagc aaggatcctt ttccacgggtg tgttctatgc cgggggcttt
180
gccatttgtt attacctcat tcaaaagttt cattccagggt ctttatatta caagttggca
240
gtggagcagc tgcagagcca tcccaggagc caggaagctc tgggcccctc tctcaacatc
300
cattatctca agctcatcga cagggaaaac ttcgtggaca ttgttgatgc caagttg
357

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<210> 5624  
 <211> 88  
 <212> PRT  
 <213> Homo sapiens

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<400> 5624
Met Trp Gln Lys Tyr Ala Gly Ser Arg Arg Ser Met Pro Leu Gly Ala
  1          5          10          15
Arg Ile Leu Phe His Gly Val Phe Tyr Ala Gly Gly Phe Ala Ile Val
  20          25          30
Tyr Tyr Leu Ile Gln Lys Phe His Ser Arg Ala Leu Tyr Tyr Lys Leu
  35          40          45
Ala Val Glu Gln Leu Gln Ser His Pro Glu Ala Gln Glu Ala Leu Gly
  50          55          60
Pro Pro Leu Asn Ile His Tyr Leu Lys Leu Ile Asp Arg Glu Asn Phe
  65          70          75          80
Val Asp Ile Val Asp Ala Lys Leu
      85

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<210> 5625  
 <211> 1017  
 <212> DNA  
 <213> Homo sapiens

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<400> 5625
gccgactcgt ggtacctggc gcttctgggc ttcgctgagc acttccgcac ttccagcccg
60

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cccaaaatcc gcctgtgcgt gcactgcctg caggccgtgt tccccctcaa gccgccgcag  
 120  
 cgcacgcagg cccgtacaca cctgcagctg ggctccgttc tctatcacca caccaagaac  
 180  
 agcgagcagg cgcgcagcca cctggagaag gcgtgggtga tatcacagca aatcccacag  
 240  
 ttccaagatg ttaaatttga agcagcaagt ctgtgtctg aattgtactg tcaagagaat  
 300  
 tccgttgatg cagcaaagcc gctgctgcgg aaggcgatcc agatctcaca gcagacccca  
 360  
 tattggcact gccgcctgct cttccagctc gctcaactgc acacgcttga gaaggacctg  
 420  
 gtgtcggcct gtgacctcct ggggttaggg gccgagtagc cccgggtggt gggatctgaa  
 480  
 tacacacggg cgctgttcct cctcagcaag gggatgctgc tgctgatgga gcgaaagctg  
 540  
 caggaggtgc acccgctgct gacctctgct gggcagatcg tggagaactg gcaggggaac  
 600  
 cccatccaga aggagtcgct gcgtgtcttc ttctgggtgc tccaggtcac ccactatctg  
 660  
 gatgccgggc aggtgaagag cgtgaagccg tgtctgaagc agctgcagca gtgcatccag  
 720  
 accatctcca cactgcacga tgatgagatc ctgccagca accccgctga cctcttcac  
 780  
 tggtgtccca aggagcacat gtgtgtgctt gtctacctgg tgactgtgat gcactccatg  
 840  
 caggccggct acctggagaa ggcgcagaag tacacggaca aggccctcat gcagctggag  
 900  
 aagctcaaga tgctggactg cagccccatc ctgtcatcct tccaagtgat cctgctggag  
 960  
 cacatcatca tgtgccgcct tgtcacgggt cacaaggcca cggcgctgca ggagatc  
 1017

<210> 5626

<211> 339

<212> PRT

<213> Homo sapiens

<400> 5626

Ala	Asp	Ser	Trp	Tyr	Leu	Ala	Leu	Gly	Phe	Ala	Glu	His	Phe	Arg
1				5				10					15	
Thr	Ser	Ser	Pro	Pro	Lys	Ile	Arg	Leu	Cys	Val	His	Cys	Leu	Gln
			20					25					30	Ala
Val	Phe	Pro	Phe	Lys	Pro	Pro	Gln	Arg	Ile	Glu	Ala	Arg	Thr	His
			35				40					45		Leu
Gln	Leu	Gly	Ser	Val	Leu	Tyr	His	His	Thr	Lys	Asn	Ser	Glu	Gln
			50				55				60			Ala
Arg	Ser	His	Leu	Glu	Lys	Ala	Trp	Leu	Ile	Ser	Gln	Gln	Ile	Pro
					70					75				80
Phe	Glu	Asp	Val	Lys	Phe	Glu	Ala	Ala	Ser	Leu	Leu	Ser	Glu	Leu
				85					90				95	Tyr
Cys	Gln	Glu	Asn	Ser	Val	Asp	Ala	Ala	Lys	Pro	Leu	Leu	Arg	Lys
			100						105				110	Ala
Ile	Gln	Ile	Ser	Gln	Gln	Thr	Pro	Tyr	Trp	His	Cys	Arg	Leu	Leu
														Phe

115 120 125  
 Gln Leu Ala Gln Leu His Thr Leu Glu Lys Asp Leu Val Ser Ala Cys  
 130 135 140  
 Asp Leu Leu Gly Val Gly Ala Glu Tyr Ala Arg Val Val Gly Ser Glu  
 145 150 155 160  
 Tyr Thr Arg Ala Leu Phe Leu Leu Ser Lys Gly Met Leu Leu Leu Met  
 165 170 175  
 Glu Arg Lys Leu Gln Glu Val His Pro Leu Leu Thr Leu Cys Gly Gln  
 180 185 190  
 Ile Val Glu Asn Trp Gln Gly Asn Pro Ile Gln Lys Glu Ser Leu Arg  
 195 200 205  
 Val Phe Leu Val Leu Gln Val Thr His Tyr Leu Asp Ala Gly Gln  
 210 215 220  
 Val Lys Ser Val Lys Pro Cys Leu Lys Gln Leu Gln Gln Cys Ile Gln  
 225 230 235 240  
 Thr Ile Ser Thr Leu His Asp Asp Glu Ile Leu Pro Ser Asn Pro Ala  
 245 250 255  
 Asp Leu Phe His Trp Leu Pro Lys Glu His Met Cys Val Leu Val Tyr  
 260 265 270  
 Leu Val Thr Val Met His Ser Met Gln Ala Gly Tyr Leu Glu Lys Ala  
 275 280 285  
 Gln Lys Tyr Thr Asp Lys Ala Leu Met Gln Leu Glu Lys Leu Lys Met  
 290 295 300  
 Leu Asp Cys Ser Pro Ile Leu Ser Ser Phe Gln Val Ile Leu Leu Glu  
 305 310 315 320  
 His Ile Ile Met Cys Arg Leu Val Thr Gly His Lys Ala Thr Ala Leu  
 325 330 335  
 Gln Glu Ile

&lt;210&gt; 5627

&lt;211&gt; 1401

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5627

nctctcacac tgtggaattc tctctatcag cctcaaagtc cagatttgga aagggagtct  
 60  
 cagcgagggg cagcagctgg cccaacccgg aggcagagcg gcaactgaac tctagccgga  
 120  
 aagagccagg gttatgtgca catgggaggt ggggaggaca ggggctgtat gtgaccctca  
 180  
 catctgttcc tcgcgcccc gatggcttct getgcctgct ccatggaccc catcgacagc  
 240  
 tttgagctcc tggatctcct gtttgaccgg caggacggca tcctgagaca cgtggagctg  
 300  
 ggcgagggct ggggtcacgt caaggaccag gtccctgccaa accccgactc tgacgacttc  
 360  
 ctcagctcca tcctgggctc tggagactca ctgccagct cccactctg gtcccccgaa  
 420  
 ggcagtgata gtggcatctc cgaagacctc cctccgacc cccaggacac cctccacgc  
 480  
 agcggaccag ccacctcccc cgccggtgc catcctgccc agcctggcaa ggggcctgc  
 540

ctctctctatc atcctggcaa ctcttgctcc accacaaccc cagggccagt gatccaacaa  
 600  
 cagcatcacc tgggggcctc ctacctcctg cgacctgggg ctgggcactg tcaggagctg  
 660  
 gtgctcaccg aggatgagaa gaagctgctg gctaaagaag gcatcaccct gccactcag  
 720  
 ctgccccca ctaagtacga ggagcgagtg ctgaaaaaaa tccgccggaa aatccggaac  
 780  
 aagcagtcgg cgcaagaaag caggaagaag aagaaggaat atatcgatgg cctggagact  
 840  
 cggtcctgtt gctgtccttt gccctcatca tcctccccct catcagccct tttggcccc  
 900  
 acaaaaccga gagccctggg gactttgctg ctgtacgagt gttctccaga actttgcaca  
 960  
 acgatgctgc cccccgctg gctgctgatg ctgtgccagg ctccgaggcc ccaggacccc  
 1020  
 gacccgaggc tgacacaacc cgagaagagt ctccaggaag ccccggggca gactggggct  
 1080  
 tccaggacac cgcgaacctg accaattcga cggaggagct ggacaacgcc accctgggtc  
 1140  
 tgagggaatgc aacagagggg ctgggccagg tcgccctgct ggactgggtg gcgcctgggc  
 1200  
 cgagcactgg ctccaggact gcagggctgg aggcggcggg agacgagctg tgagccccac  
 1260  
 caggactatg ctccaggcc cctctgccca ggggtgcctt ggggatgctg cactgggcag  
 1320  
 ctaccacact ggggatggga cgtgaggcca agaccccgag agagatgcca gaatggggga  
 1380  
 ggcacagctc atagccacac a  
 1401

&lt;210&gt; 5628

&lt;211&gt; 299

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5628

Met Ala Ser Ala Ala Cys Ser Met Asp Pro Ile Asp Ser Phe Glu Leu  
 1 5 10 15  
 Leu Asp Leu Leu Phe Asp Arg Gln Asp Gly Ile Leu Arg His Val Glu  
 20 25 30  
 Leu Gly Glu Gly Trp Gly His Val Lys Asp Gln Val Leu Pro Asn Pro  
 35 40 45  
 Asp Ser Asp Asp Phe Leu Ser Ser Ile Leu Gly Ser Gly Asp Ser Leu  
 50 55 60  
 Pro Ser Ser Pro Leu Trp Ser Pro Glu Gly Ser Asp Ser Gly Ile Ser  
 65 70 75 80  
 Glu Asp Leu Pro Ser Asp Pro Gln Asp Thr Pro Pro Arg Ser Gly Pro  
 85 90 95  
 Ala Thr Ser Pro Ala Gly Cys His Pro Ala Gln Pro Gly Lys Gly Pro  
 100 105 110  
 Cys Leu Ser Tyr His Pro Gly Asn Ser Cys Ser Thr Thr Thr Pro Gly  
 115 120 125  
 Pro Val Ile Gln Gln Gln His His Leu Gly Ala Ser Tyr Leu Leu Arg

```

      130              135              140
Pro Gly Ala Gly His Cys Gln Glu Leu Val Leu Thr Glu Asp Glu Lys
145              150              155              160
Lys Leu Leu Ala Lys Glu Gly Ile Thr Leu Pro Thr Gln Leu Pro Leu
      165              170              175
Thr Lys Tyr Glu Glu Arg Val Leu Lys Lys Ile Arg Arg Lys Ile Arg
      180              185              190
Asn Lys Gln Ser Ala Gln Glu Ser Arg Lys Lys Lys Lys Glu Tyr Ile
      195              200              205
Asp Gly Leu Glu Thr Arg Ser Cys Cys Cys Pro Leu Pro Ser Ser Ser
      210              215              220
Ser Pro Pro Ser Ala Leu Leu Ala Pro Thr Lys Pro Arg Ala Leu Gly
      225              230              235              240
Thr Leu Arg Leu Tyr Glu Cys Ser Pro Glu Leu Cys Thr Thr Met Leu
      245              250              255
Pro Pro Ala Trp Leu Leu Met Leu Cys Gln Ala Pro Arg Pro Gln Asp
      260              265              270
Pro Asp Pro Arg Leu Thr Gln Pro Glu Lys Ser Leu Gln Glu Ala Pro
      275              280              285
Gly Gln Thr Gly Ala Ser Arg Thr Pro Arg Thr
      290              295

```

&lt;210&gt; 5629

&lt;211&gt; 428

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5629

```

gtgcacgacc ccaactgaatc atcccacaac catggatggg agacacactc agtctccttt
60
aacagaagat aaagctgggg cttacagaga atgtacaact tggcccaggg cacaccagtt
120
agccatcagg ggcagngctg ctattcaggt ctgggactgt gggactccag agcccatggt
180
ttttacgagg atgccatact gccacaatgg atgggtgtctt tatctcctga tatatgattg
240
tgtgttgga ggcgtggggg ggcagctgga agaattggaga ggcattattg tggaggatct
300
tcccccatc tctgtaccc tctcttgag ctcccagttc catctgagaa attatctact
360
ctgagaaatc gtcacaacac agcatgggtg tgagtgcagt ggcagaagcc tgtgcctggg
420
tgtatggg
428

```

&lt;210&gt; 5630

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5630

```

Met Asp Gly Arg His Thr Gln Ser Pro Leu Thr Glu Asp Lys Ala Gly
1      5      10      15
Ala Tyr Arg Glu Cys Thr Thr Trp Pro Arg Ala His Gln Leu Ala Ile

```

	20		25		30										
Arg	Gly	Xaa	Ala	Ala	Ile	Gln	Val	Trp	Asp	Cys	Gly	Thr	Pro	Glu	Pro
	35						40					45			
Met	Phe	Phe	Thr	Arg	Met	Pro	Tyr	Cys	His	Asn	Gly	Trp	Cys	Leu	Tyr
	50					55					60				
Leu	Leu	Ile	Tyr	Asp	Cys	Val	Leu	Gly	Gly	Val	Gly	Trp	Gln	Leu	Glu
	65				70					75				80	
Glu	Trp	Arg	Gly	Ile	Phe	Val	Glu	Asp	Leu	Pro	Pro	Phe	Ser	Ala	Thr
			85					90					95		
Leu	Ser	Trp	Ser	Ser	Gln	Phe	His	Leu	Arg	Asn	Tyr	Leu	Leu		
			100					105					110		

&lt;210&gt; 5631

&lt;211&gt; 783

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5631

acgcggtgccc agcacatgtg tgacacagca gatgcaggag agaacacaca ccaccgtctc  
 60  
 ttgtcacacg tgtgcccctg tccggcccgg ggggctcacc tctccttcac ggagagaatt  
 120  
 ctttttatta cgagtgaaca gatgaactaa ggtaagcggg tctcagcctt ccgctggtgc  
 180  
 agcatctcca cgcagggcct cagccccgtc ctggccttgc ctgaggactg caccatgggt  
 240  
 gttccttggg catggaggag gcagcaggaa ggggtgacag gagcaggagc aggtgcaggg  
 300  
 cactcacac cacaggcctc cccacacctt gagctgccaa cagccaagac tcttggcgag  
 360  
 gccgggagag gaggggtgag aggggaaggag ggtctctgtg aaagcaagcc ccaccccag  
 420  
 agcagagcag agaccagggt ctgcaaatca caccctcccc ccacgagttc etcctttgag  
 480  
 gccagcagca cccgagggag ggcaggggct gcacagagac cagagaaagg aaaacccac  
 540  
 agaagaaaac tcaaagcatc agtcccatgc gtgtctgctg aacgagtga tgggcccacaa  
 600  
 ggctcttctc tacaacggc acgcatccat ccgacagggg gccacaggac acggccgggg  
 660  
 ccgtctgcgt ctgtgectgt gcagcccaca ccagtgcagc ccggggccct ctcagacctc  
 720  
 accacacgcy tgcccagcac atgtgtgcac acgcagatgc aggagagaac acacaccacc  
 780  
 gtc  
 783

&lt;210&gt; 5632

&lt;211&gt; 183

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5632

Met Gly Val Pro Trp Ala Trp Arg Arg Gln Gln Glu Gly Val Thr Gly

```

      1           5           10           15
Ala Gly Ala Gly Ala Gly His Leu Thr Pro Gln Ala Ser Pro Thr Ser
      20           25           30
Glu Leu Pro Thr Ala Lys Thr Pro Gly Glu Ala Gly Arg Gly Gly Val
      35           40           45
Arg Gly Lys Glu Gly Leu Cys Glu Ser Lys Pro His Pro Gln Ser Arg
      50           55           60
Ala Glu Thr Gln Val Cys Lys Ser His Pro Pro Pro Thr Ser Ser Ser
      65           70           75           80
Phe Glu Ala Ser Ser Thr Arg Gly Arg Ala Gly Ala Ala Gln Arg Pro
      85           90           95
Glu Lys Gly Lys Pro His Arg Arg Lys Leu Lys Ala Ser Val Pro Cys
      100          105          110
Val Ser Ala Glu Arg Val Asn Gly Pro Lys Gly Ser Ser Leu Gln Thr
      115          120          125
Ala Arg Ile His Pro Thr Gly Gly His Arg Thr Arg Pro Gly Pro Ser
      130          135          140
Ala Ser Val Pro Val Gln Pro Thr Pro Val Gln Pro Gly Ala Leu Ser
      145          150          155          160
Asp Leu Thr Thr Arg Val Pro Ser Thr Cys Val His Thr Gln Met Gln
      165          170          175
Glu Arg Thr His Thr Thr Val
      180

```

<210> 5633  
 <211> 2181  
 <212> DNA  
 <213> Homo sapiens

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<400> 5633
gccaatgtcc ctgtggccac tcagctgaga ccgagggcga cctgggcagc tgcgggtgtc
60
tgtcacctcc gtgtcccaca tagatgccag gctctgcttc tgtggttctg gaggtcatta
120
gtcaattgta tgtggtgctg tctgtcctcc tgattgcaga ggaggaagga acccctaaa
180
tgagcggggt ctgagtgtg gggccgtgg tctgctctgc ctggtgggat tctccagtgc
240
tggcttcctc tgtgccccag ccccaacttc accaacaagg agggcgtgaa aatgacaagg
300
aatccatccc tagagttcac aggagatcta gggcagagtt tccaagctgc agctgctctg
360
gccctgtgtg agctgtgtct ctgaggaagc cccaggctga ggtagctacc aggcggaggc
420
tgggtttgga ggcctccaca tcagggaatt gagcggtagg gggttcagcc ttcacgttg
480
tcgccgcact gtatgggaag tgggtctctg ggtctgcttg cccagtctca ccgtcctctt
540
cctccccaaa gccgcctgga taaggggctg gccgcactgg tgcgggagcg tggcgcgat
600
ctgggtgtca tcgagggcat gggccgtgct gtccacacaa actaccacgc agccctgcgc
660
tgcgagagcc tcaagctggc cgtcatcaag aacgcgtggc tggccgagcg gctgggcggc
720

```

cggtctttca ggcctatctt caagtacgag gtcccagccg agtgaggcgc tgcagctgcc  
780  
ggactcttct gcttgctact tgtccgagtg gcttcagaga ttaaaggggc cccctcataa  
840  
atgtgcctta attttcgag ataacagggg gaatagacat cattttggga gtcttcccc  
900  
ttgtcaggga gctactcctt agaggacag aggtcatcct ggctgcaac tcaggccccg  
960  
ccctgaacga cgtgaccac agcaggtccc tcatcgtggc agagcgtatt gcgggcatgg  
1020  
accctgaccg tgcgcagcct gctggacacc agggagcact gtctgaacga gttcaacttc  
1080  
ccggatccct actccaaagt gaagcagcgg gagaatggcg tggcgctgag gtgcttcccc  
1140  
ggggctcgtg gctccctgga cgcgctgggc tgggaggaaac ggcagctggc gctggtgaaa  
1200  
ggcctcctgg cggggaatgt cttcgactgg ggggcaaaag ccgtgtctgc tgccttgaa  
1260  
tccgaccctt actttgggtt tgaagaagca aagagggaat tacaagaaag accctggctc  
1320  
gtggattcct acagcagtg gcttcagaga ttaaaggggc cccctcataa atgtgcctta  
1380  
attttcgag ataacagtgg aatagacatc attttgggag tcttccccctt tgcaggggag  
1440  
ctactcctta gagggacaga ggtcatcctg gcgtgcaact caggccccgc cctgaacgac  
1500  
gtgaccacac gcgagtcctt catcgtggca gagcgtattg cgggcatgga ccctgtcgtg  
1560  
cactctgcgc tccaggaaga gaggtgctg ctggtgcaga cgggctccag ctccccgtgc  
1620  
ctcgacctca gccgcctgga taaggggctg gccgcactgg tgcgggagcg tggcgcggt  
1680  
ctggtgtgca tcgagggcat gggccgtgct gtccacacaa actaccacgc agccctgcgc  
1740  
tgcgagagcc tcaagctggc cgtcatcaag aacgcgtggc tggccgagcg gctgggcggc  
1800  
cggtctttca gctcatctt caagtacgag gtcccagccg agtgaggcgc tgcagctgcc  
1860  
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1920  
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1980  
tgcgtgtgac ccagaggcga gacgcagctt tgcctggga gacgttcata ttggaatcta  
2040  
tttaactgct aaagaacctt ttatatatat atatatatat aaatagagag atctatacag  
2100  
gtatgtctga cgggacgcag caccgtgggc acgcacaaa tagagttttt aaaagaggaa  
2160  
aaaaaactct atttgggtgc t  
2181

&lt;210&gt; 5634

&lt;211&gt; 289

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5634

```

Pro Thr Ala Ser Pro Ser Ser Trp Gln Ser Val Leu Arg Ala Trp Thr
 1           5           10           15
Leu Thr Val Arg Ser Leu Leu Asp Thr Arg Glu His Cys Leu Asn Glu
 20           25           30
Phe Asn Phe Pro Asp Pro Tyr Ser Lys Val Lys Gln Arg Glu Asn Gly
 35           40           45
Val Ala Leu Arg Cys Phe Pro Gly Val Val Arg Ser Leu Asp Ala Leu
 50           55           60
Gly Trp Glu Glu Arg Gln Leu Ala Leu Val Lys Gly Leu Leu Ala Gly
 65           70           75           80
Asn Val Phe Asp Trp Gly Ala Lys Ala Val Ser Ala Val Leu Glu Ser
 85           90           95
Asp Pro Tyr Phe Gly Phe Glu Glu Ala Lys Arg Lys Leu Gln Glu Arg
100          105          110
Pro Trp Leu Val Asp Ser Tyr Ser Glu Trp Leu Gln Arg Leu Lys Gly
115          120          125
Pro Pro His Lys Cys Ala Leu Ile Phe Ala Asp Asn Ser Gly Ile Asp
130          135          140
Ile Ile Leu Gly Val Phe Pro Phe Val Arg Glu Leu Leu Leu Arg Gly
145          150          155          160
Thr Glu Val Ile Leu Ala Cys Asn Ser Gly Pro Ala Leu Asn Asp Val
165          170          175
Thr His Ser Glu Ser Leu Ile Val Ala Glu Arg Ile Ala Gly Met Asp
180          185          190
Pro Val Val His Ser Ala Leu Gln Glu Glu Arg Leu Leu Leu Val Gln
195          200          205
Thr Gly Ser Ser Ser Pro Cys Leu Asp Leu Ser Arg Leu Asp Lys Gly
210          215          220
Leu Ala Ala Leu Val Arg Glu Arg Gly Ala Asp Leu Val Val Ile Glu
225          230          235          240
Gly Met Gly Arg Ala Val His Thr Asn Tyr His Ala Ala Leu Arg Cys
245          250          255
Glu Ser Leu Lys Leu Ala Val Ile Lys Asn Ala Trp Leu Ala Glu Arg
260          265          270
Leu Gly Gly Arg Leu Phe Ser Val Ile Phe Lys Tyr Glu Val Pro Ala
275          280          285
Glu

```

&lt;210&gt; 5635

&lt;211&gt; 614

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5635

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nntgtgaaag atgtgtgcaga agtgttccag aagtggctga agatagaagg aaaaaagtgc
60
cactgcctat cagaaaaaac aaaacaaaac atgggaaata caaccaccaa attccgtaaa
120
gcactcatca atggtgatga aaacctggcc tgccaaatat atgaaaacaa tcctcagcta
180

```



aaagaatctc ttgatccaaa tacatcttat ggggagccct accagcacia taccattta  
 240  
 cattatgctg ctagacatgg aatgaataaa atattaggag atgatttcag aagagcagat  
 300  
 tgtctgcaga tgatcttaaa atggaaagga gcaaaacttg accaggggtga atatgagaga  
 360  
 gcagctattg atgctgttga taacaaaaaa aacacaccct tgcactatgc tgcctgcctca  
 420  
 gggatgaaag cctgtgtaga aaaacatgga ggagacttgt ttgctgagaa tgaaaataaa  
 480  
 gatactcctt gtgattgtgc tgaaaagcaa caccacaaag atttggccct caatctggaa  
 540  
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 600  
 ttagacaaac gaga  
 614

<210> 5636  
 <211> 204  
 <212> PRT  
 <213> Homo sapiens

<400> 5636  
 Xaa Val Lys Asp Val Ala Glu Val Phe Gln Lys Trp Leu Lys Ile Glu  
 1 5 10 15  
 Gly Lys Lys Cys His Cys Leu Ser Glu Lys Thr Lys Gln Asn Met Gly  
 20 25 30  
 Asn Thr Thr Thr Lys Phe Arg Lys Ala Leu Ile Asn Gly Asp Glu Asn  
 35 40 45  
 Leu Ala Cys Gln Ile Tyr Glu Asn Asn Pro Gln Leu Lys Glu Ser Leu  
 50 55 60  
 Asp Pro Asn Thr Ser Tyr Gly Glu Pro Tyr Gln His Asn Thr Pro Leu  
 65 70 75 80  
 His Tyr Ala Ala Arg His Gly Met Asn Lys Ile Leu Gly Asp Asp Phe  
 85 90 95  
 Arg Arg Ala Asp Cys Leu Gln Met Ile Leu Lys Trp Lys Gly Ala Lys  
 100 105 110  
 Leu Asp Gln Gly Glu Tyr Glu Arg Ala Ala Ile Asp Ala Val Asp Asn  
 115 120 125  
 Lys Lys Asn Thr Pro Leu His Tyr Ala Ala Ala Ser Gly Met Lys Ala  
 130 135 140  
 Cys Val Glu Lys His Gly Gly Asp Leu Phe Ala Glu Asn Glu Asn Lys  
 145 150 155 160  
 Asp Thr Pro Cys Asp Cys Ala Glu Lys Gln His His Lys Asp Leu Ala  
 165 170 175  
 Leu Asn Leu Glu Ser Gln Met Val Phe Ser Arg Asp Pro Glu Ala Glu  
 180 185 190  
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 195 200

<210> 5637  
 <211> 825  
 <212> DNA  
 <213> Homo sapiens

<400> 5637  
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 360  
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 420  
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 720  
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 825

<210> 5638  
 <211> 132  
 <212> PRT  
 <213> Homo sapiens

<400> 5638  
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 20 25 30  
 Leu Thr Gly Ala Arg Trp Phe Cys Asp Pro Ser Gln Ala His Ala Pro  
 35 40 45  
 Leu Ala Gly Arg Leu Ala Arg Ala Pro Leu Trp Leu Ala Cys Gly Asp  
 50 55 60  
 Thr Trp Ala Leu Leu His Val Pro Thr Arg Ala Val Ala Gly Ser Lys  
 65 70 75 80  
 Glu Ala Gln Pro Arg Pro Ala Cys Val Asp Pro Ala Gly Leu Arg Ala  
 85 90 95  
 Pro Glu Leu Leu Thr Val Ser Glu Pro Gly Cys Pro Ala Pro Arg Arg  
 100 105 110  
 Pro Pro Ser Ser Cys Pro Ala Trp Asp Pro Ser Ala Val Cys Leu Leu  
 115 120 125  
 Asn Gln Gly Val

130

&lt;210&gt; 5639

&lt;211&gt; 2433

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5639

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720  
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780  
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1380

4818

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 1980  
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 2433

&lt;210&gt; 5640

&lt;211&gt; 540

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5640

Met Cys Pro Ser Pro Glu Arg Gln Glu Asp Gly Ala Arg Lys Asp Phe  
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 Ser Ser Arg Leu Ala Ala Gly Pro Thr Phe Gln His Phe Leu Lys Ser  
 20 25 30  
 Ala Ser Ala Pro Gln Glu Lys Leu Ser Ser Glu Val Glu Asp Pro Pro  
 35 40 45  
 Pro Tyr Leu Met Met Asp Glu Leu Leu Gly Arg Gln Arg Lys Val Tyr  
 50 55 60  
 Leu Glu Thr Tyr Gly Cys Gln Met Asn Val Asn Asp Thr Glu Ile Ala  
 65 70 75 80  
 Trp Ser Ile Leu Gln Lys Ser Gly Tyr Leu Arg Pro Val Thr Ser Lys

					85					90					95				
Ala	Asp	Val	Ile	Leu	Leu	Val	Thr	Cys	Ser	Ile	Arg	Glu	Lys	Ala	Glu				
			100					105					110						
Gln	Thr	Ile	Trp	Asn	Arg	Leu	His	Gln	Leu	Lys	Ala	Leu	Lys	Thr	Arg				
		115					120					125							
Arg	Pro	Arg	Ser	Arg	Val	Pro	Leu	Arg	Ile	Gly	Ile	Leu	Gly	Cys	Met				
		130				135					140								
Ala	Glu	Arg	Leu	Lys	Glu	Glu	Ile	Leu	Asn	Arg	Glu	Lys	Met	Val	Asp				
		145			150				155					160					
Ile	Leu	Ala	Gly	Pro	Asp	Ala	Tyr	Arg	Asp	Leu	Pro	Arg	Leu	Leu	Ala				
				165					170					175					
Val	Ala	Glu	Ser	Gly	Gln	Gln	Ala	Ala	Asn	Val	Leu	Leu	Ser	Leu	Asp				
			180					185					190						
Glu	Thr	Tyr	Ala	Asp	Val	Met	Pro	Val	Gln	Thr	Ser	Ala	Ser	Ala	Thr				
		195					200					205							
Ser	Ala	Phe	Val	Ser	Ile	Met	Arg	Gly	Cys	Asp	Asn	Met	Cys	Ser	Tyr				
		210				215					220								
Cys	Ile	Val	Pro	Phe	Thr	Arg	Gly	Arg	Glu	Arg	Ser	Arg	Pro	Ile	Ala				
		225			230				235					240					
Ser	Ile	Leu	Glu	Glu	Val	Lys	Lys	Leu	Ser	Glu	Gln	Gly	Leu	Lys	Glu				
				245				250						255					
Val	Thr	Leu	Leu	Gly	Gln	Asn	Val	Asn	Ser	Phe	Arg	Asp	Asn	Ser	Glu				
			260					265					270						
Val	Gln	Phe	Asn	Ser	Ala	Val	Pro	Thr	Asn	Leu	Ser	Arg	Gly	Phe	Thr				
		275					280					285							
Thr	Asn	Tyr	Lys	Thr	Lys	Gln	Gly	Gly	Leu	Arg	Phe	Ala	His	Leu	Leu				
		290				295					300								
Asp	Gln	Val	Ser	Arg	Val	Asp	Pro	Glu	Met	Arg	Ile	Arg	Phe	Thr	Ser				
				310					315					320					
Pro	His	Pro	Lys	Asp	Phe	Pro	Asp	Glu	Val	Leu	Gln	Leu	Ile	His	Glu				
				325				330						335					
Arg	Asp	Asn	Ile	Cys	Lys	Gln	Ile	His	Leu	Pro	Ala	Gln	Ser	Gly	Ser				
			340					345					350						
Ser	Arg	Val	Leu	Glu	Ala	Met	Arg	Arg	Gly	Tyr	Ser	Arg	Glu	Ala	Tyr				
		355					360					365							
Val	Glu	Leu	Val	His	His	Ile	Arg	Glu	Ser	Ile	Pro	Gly	Val	Ser	Leu				
		370				375			</										

515 520 525  
Arg His Leu Gly Asp Met Phe Ser Ala Gly Pro Leu  
530 535 540

<210> 5641  
<211> 293  
<212> DNA  
<213> Homo sapiens

<400> 5641  
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ttctgtggcc acgcgtccaa aaccaatcag gtcaactcgg gcgggtgtgct gctgagggttg  
120  
caggtgggcg aggaggtgtg gctggctggg gcaccctcgg catccctgga gagccagggtg  
180  
aggagggcag atacaagcag aaattccagt cagtgttcac ggtcactcgg cagaccaccac  
240  
agccccctgc acccaacagc ctgatcagat tcaacgcggg cctcaccaac ccg  
293

<210> 5642  
<211> 87  
<212> PRT  
<213> Homo sapiens

<400> 5642  
Ala Ser His Thr Ala Asn Leu Cys Val Leu Leu Tyr Arg Ser Gly Val  
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Lys Val Val Thr Phe Cys Gly His Ala Ser Lys Thr Asn Gln Val Asn  
20 25 30  
Ser Gly Gly Val Leu Leu Arg Leu Gln Val Gly Glu Val Trp Leu  
35 40 45  
Ala Gly Ala Pro Leu Ala Ser Leu Glu Ser Gln Val Arg Arg Ala Asp  
50 55 60  
Thr Ser Arg Asn Ser Ser Gln Cys Ser Arg Ser Leu Gly Arg Pro Thr  
65 70 75 80  
Ser Pro Leu His Pro Thr Ala  
85

<210> 5643  
<211> 1218  
<212> DNA  
<213> Homo sapiens

<400> 5643  
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120  
aaagccaaac gatatcacat ggatgccagt ggtgaggctg taagcgaaac tcttcagttt  
180  
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240

cacagcgatg gcagatactc cctcagtgga tctgtagctc actctagaga tgccggaaga  
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 840  
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 1080  
 ttccacacca taaaattaga ttattaaatt tttcccaaac ttttcagac tctctttgaa  
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 1200  
 cacagagatt tttgcttt  
 1218

&lt;210&gt; 5644

&lt;211&gt; 202

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5644

Trp Glu Gln Asp Phe Gly His Pro Val Ser Gln Glu Ser Ser Trp Ser  
 1 5 10 15  
 Gln Glu Tyr Ser Phe Gly Pro Ser Ala Val Leu Gly Asp Phe Gly Ser  
 20 25 30  
 Ser Arg Leu Ile Glu Lys Glu Cys Leu Glu Lys Glu Ser Arg Asp Tyr  
 35 40 45  
 Asp Val Asp His Pro Gly Glu Ala Asp Ser Val Leu Arg Gly Ser Ser  
 50 55 60  
 Gln Val Gln Ala Arg Gly Arg Ala Leu Asn Ile Val Asp Gln Glu Gly  
 65 70 75 80  
 Ser Leu Leu Gly Lys Gly Glu Thr Gln Gly Leu Leu Thr Ala Lys Gly  
 85 90 95  
 Gly Val Gly Lys Leu Val Thr Leu Arg Asn Val Ser Thr Lys Lys Ile

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      100      105      110
Pro Thr Val Asn Arg Ile Thr Pro Lys Thr Gln Gly Thr Asn Gln Ile
      115      120      125
Gln Lys Asn Thr Pro Ser Pro Asp Val Thr Leu Gly Thr Asn Pro Gly
      130      135      140
Thr Glu Asp Ile Gln Phe Pro Ile Gln Lys Ile Pro Leu Gly Leu Asp
      145      150      155      160
Leu Lys Asn Leu Arg Leu Pro Arg Arg Lys Met Ser Phe Asp Ile Ile
      165      170      175
Asp Lys Ser Asp Val Phe Ser Arg Phe Gly Ile Glu Ile Ile Lys Trp
      180      185      190
Ala Gly Phe His Thr Ile Lys Leu Asp Tyr
      195      200

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&lt;210&gt; 5645

&lt;211&gt; 156

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5645

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cctcagatca gcttccccctc tcccaggcaa gaggacacga gcaactggcaa gtacacctgc

120

aaagtccccg gcctctacta ctttgtctac cagcgc

156

&lt;210&gt; 5646

&lt;211&gt; 52

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5646

Pro Arg Pro Ser Arg Arg Arg Asn Cys Arg Trp Ala Val Phe Gly Leu

1

Ala Gln Arg Cys Pro Gln Ile Ser Phe Pro Ser Pro Arg Gln Glu Asp

20

Thr Ser Thr Gly Lys Phe Thr Cys Lys Val Pro Gly Leu Tyr Tyr Phe

35

Val Tyr His Ala

50

&lt;210&gt; 5647

&lt;211&gt; 150

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5647

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120

aagggagaac ccggcttacc cgccatccn

150



<210> 5648  
 <211> 50  
 <212> PRT  
 <213> Homo sapiens

<400> 5648  
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 Phe Phe Pro Gly Arg Pro Lys Gly Glu Pro Gly Ile Pro Ala Ile Pro  
 20 25 30  
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 35 40 45  
 His Pro  
 50

<210> 5649  
 <211> 345  
 <212> DNA  
 <213> Homo sapiens

<400> 5649  
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 240  
 ccgtggggcc ctccgacttc gggcgcgcga gtatcgaccc cacttcaca cgcctcttcg  
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 345

<210> 5650  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 5650  
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 20 25 30  
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 35 40 45  
 Trp Cys Arg Arg Arg Thr Ala Thr Arg Cys Pro Gly Gly Ala Thr Arg  
 50 55 60  
 Arg Val Arg Gly Ala Leu Arg Leu Arg Ala Ala Gln Tyr Arg Pro His  
 65 70 75 80  
 Thr His Thr Pro Leu Arg Val Leu Glu Pro Gly Leu Gln Trp Gln Ala  
 85 90 95  
 Gly Val Ser Gln

100

&lt;210&gt; 5651

&lt;211&gt; 615

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5651

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120  
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180  
gctagcttgc taggaatgag agtaaacaaat gtatatgatg tggataataa gacatacctt  
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300  
catacaacag aatttgagtgc gcctaagaat atgatgccgt ctagttttgc catgaagtgc  
360  
cgaaaacatt tgaagagtcg gagattagtc agtgcaaac agcttggtgt ggatagaatt  
420  
gtagattttc aatttggaag tgatgaagct gcttaccatt taatcattga gctctatgat  
480  
agggggaaca ttgttcttac agattatgag tacgtaattt taaatattct aaggtttcga  
540  
actgatgagg cagatgatgt taaatttgct gtctgtgaac gctatccact tgatcatgct  
600  
agagctgctg aacct  
615

&lt;210&gt; 5652

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5652

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Leu	Asn	Ala	Ser	Leu	Leu	Gly	Met	Arg	Val	Asn	Asn	Val	Tyr	Asp	Val
		20						25					30		
Asp	Asn	Lys	Thr	Tyr	Leu	Ile	Arg	Leu	Gln	Lys	Pro	Asp	Phe	Lys	Ala
		35					40					45			
Thr	Leu	Leu	Glu	Ser	Gly	Ile	Gln	Ile	His	Thr	Thr	Glu	Phe	Glu	
	50				55				60						
Trp	Pro	Lys	Asn	Met	Met	Pro	Ser	Ser	Phe	Ala	Met	Lys	Cys	Arg	Lys
65				70					75				80		
His	Leu	Lys	Ser	Arg	Arg	Leu	Val	Ser	Ala	Lys	Gln	Leu	Gly	Val	Asp
			85					90					95		
Arg	Ile	Val	Asp	Phe	Gln	Phe	Gly	Ser	Asp	Glu	Ala	Ala	Tyr	His	Leu
		100					105						110		
Ile	Ile	Glu	Leu	Tyr	Asp	Arg	Gly	Asn	Ile	Val	Leu	Thr	Asp	Tyr	Glu
		115					120					125			
Tyr	Val	Ile	Leu	Asn	Ile	Leu	Arg	Phe	Arg	Thr	Asp	Glu	Ala	Asp	Asp

4825

130	135	140
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145	150	155
Ala Glu Pro		

<210> 5653  
 <211> 1439  
 <212> DNA  
 <213> Homo sapiens

<400> 5653  
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 180  
 gttgaatctg atcaggctgt tgggtgcagg gggctgggtg gtctgccgag tgaccactca  
 240  
 gacaccgtgt cctcttcctt gggagagggg aagcagatct gaggacatct ctgtgccagg  
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 360  
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 420  
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<400> 5654  
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 Ile Pro Gly Ile Arg Gly Pro Lys Gly Gln Lys Gly Glu Pro Gly Leu  
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 Pro Gly His Pro Gly Lys Asn Gly Pro Met Gly Pro Pro Gly Met Pro  
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 Gly Val Pro Gly Pro Met Gly Ile Pro Gly Glu Pro Gly Glu Glu Gly  
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 Arg Tyr Lys Gln Lys Phe Gln Ser Val Phe Thr Val Thr Arg Gln Thr  
 115 120 125  
 His Gln Pro Pro Ala Pro Asn Ser Leu Ile Arg Phe Asn Ala Val Leu  
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 Thr Asn Pro Gln Gly Asp Tyr Asp Thr Ser Thr Gly Lys Phe Thr Cys  
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 Lys Val Pro Gly Leu Tyr Tyr Phe Val Tyr His Ala Ser His Thr Ala  
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 Asn Leu Cys Val Leu Leu Tyr Arg Ser Gly Val Lys Val Val Thr Phe.  
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&lt;210&gt; 5656

&lt;211&gt; 987

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5656

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 Ala Glu Val Arg Arg Glu Trp Ala Lys Tyr Met Glu Val His Glu Lys  
 35 40 45  
 Ala Ser Phe Thr Asn Ser Glu Leu His Arg Ala Met Asn Leu His Val  
 50 55 60  
 Gly Asn Leu Arg Leu Leu Ser Gly Pro Leu Asp Gln Val Arg Ala Ala  
 65 70 75 80  
 Leu Pro Thr Pro Ala Leu Ser Pro Glu Asp Lys Ala Val Leu Gln Asn  
 85 90 95  
 Leu Lys Arg Ile Leu Ala Lys Val Gln Glu Met Arg Asp Gln Arg Val  
 100 105 110  
 Ser Leu Glu Gln Gln Leu Arg Glu Leu Ile Gln Lys Asp Asp Ile Thr  
 115 120 125  
 Ala Ser Leu Val Thr Thr Asp His Ser Glu Met Lys Lys Leu Phe Glu  
 130 135 140  
 Glu Gln Leu Lys Lys Tyr Asp Gln Leu Lys Val Tyr Leu Glu Gln Asn  
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 165 170 175  
 Gln Tyr Ala Ala Val Arg Arg Val Leu Ser Asp Leu Asp Gln Lys Trp  
 180 185 190  
 Asn Ser Thr Leu Gln Thr Leu Val Ala Ser Tyr Glu Ala Tyr Glu Asp  
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 Leu Met Lys Lys Ser Gln Glu Gly Arg Asp Phe Tyr Ala Asp Leu Glu  
 210 215 220  
 Ser Lys Val Ala Ala Leu Leu Glu Arg Thr Gln Ser Thr Cys Gln Ala

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Glu Ser Glu Ala Val Glu Ala Gly Asp Pro Pro Glu Glu Leu Arg Ser
          275          280          285
Leu Pro Pro Asp Met Val Ala Gly Pro Arg Leu Pro Asp Thr Phe Leu
          290          295          300
Gly Ser Ala Thr Pro Leu His Phe Pro Pro Ser Pro Phe Pro Ser Ser
305          310          315          320
Thr Gly Pro Gly Pro His Tyr Leu Ser Gly Pro Leu Pro Pro Gly Thr
          325          330          335
Tyr Ser Gly Pro Thr Gln Leu Ile Gln Pro Arg Ala Pro Gly Pro His
          340          345          350
Ala Met Pro Val Ala Pro Gly Pro Ala Leu Tyr Pro Ala Pro Ala Tyr
          355          360          365
Thr Pro Glu Leu Gly Leu Val Pro Arg Ser Ser Pro Gln His Gly Val
          370          375          380
Val Ser Ser Pro Tyr Val Gly Val Gly Pro Ala Pro Pro Val Ala Gly
385          390          395          400
Leu Pro Ser Ala Pro Pro Gln Phe Ser Gly Pro Glu Leu Ala Met
          405          410          415
Ala Val Arg Pro Ala Thr Thr Thr Val Asp Ser Ile Gln Ala Pro Ile
          420          425          430
Pro Ser His Thr Ala Pro Arg Pro Asn Pro Thr Pro Ala Pro Pro Pro
          435          440          445
Pro Cys Phe Pro Val Pro Pro Gln Pro Leu Pro Thr Pro Tyr Thr
          450          455          460
Tyr Pro Ala Gly Ala Lys Gln Pro Ile Pro Ala Gln His His Phe Ser
465          470          475          480
Ser Gly Ile Pro Thr Gly Phe Pro Ala Pro Arg Ile Gly Pro Gln Pro
          485          490          495
Gln Pro His Pro Gln Pro His Pro Ser Gln Ala Phe Gly Pro Gln Pro
          500          505          510
Pro Gln Gln Pro Leu Pro Leu Gln His Pro His Leu Phe Pro Pro Gln
          515          520          525
Ala Pro Gly Leu Leu Pro Pro Gln Ser Pro Tyr Pro Tyr Ala Pro Gln
          530          535          540
Pro Gly Val Leu Gly Gln Pro Pro Pro Pro Leu His Thr Gln Leu Tyr
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Pro Gly Pro Ala Gln Asp Pro Leu Pro Ala His Ser Gly Ala Leu Pro
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Phe Pro Ser Pro Gly Pro Pro Gln Pro Pro His Pro Pro Leu Ala Tyr
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Thr Ile Arg Gly Pro Ser Ser Ala Gly Gln Ser Thr Pro Ser Pro His
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Arg Pro Pro Ala Ala Glu Pro Pro Pro Cys Leu Arg Arg Gly Ala Ala
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Ala Ala Asp Leu Leu Ser Ser Ser Pro Glu Ser Gln His Gly Gly Thr

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 690 695 700  
 Pro Tyr Glu His Pro Glu Arg Leu Arg Gln Leu Gln Glu Leu Glu  
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 Ala Phe Arg Gly Gln Leu Gly Asp Val Gly Ala Leu Asp Thr Val Trp  
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 Arg Glu Leu Gln Asp Ala Gln Glu His Asp Ala Arg Gly Arg Ser Ile  
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 Pro Tyr Asp Ser Asn Arg Val Val Leu Arg Ser Gly Lys Asp Asp Tyr  
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 Met Val His Glu Gln Lys Val Ser Val Ile Val Met Leu Val Ser Glu  
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 Gly Gln Pro Met Val His Gly Ala Leu Ser Leu Ala Leu Ser Ser Val  
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&lt;210&gt; 5657

&lt;211&gt; 1020

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5657

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&lt;210&gt; 5658

&lt;211&gt; 301

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5658

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 Ser Leu Gln Pro Cys His Asp Pro Val Val Thr Pro Asp Gly Tyr Leu  
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 Tyr Glu Arg Glu Ala Ile Leu Glu Tyr Ile Leu His Gln Lys Lys Glu  
 65 70 75 80  
 Ile Ala Arg Gln Met Lys Ala Tyr Glu Lys Gln Arg Gly Thr Arg Arg  
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 Glu Glu Gln Lys Glu Leu Gln Arg Ala Ala Ser Gln Asp His Val Arg  
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 Gly Phe Leu Glu Lys Glu Ser Ala Ile Val Ser Arg Pro Leu Asn Pro  
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 Phe Thr Ala Lys Ala Leu Ser Gly Thr Ser Pro Asp Asp Val Gln Pro  
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 Gly Pro Ser Val Gly Pro Pro Ser Lys Asp Lys Asp Lys Val Leu Pro

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 Arg Met Ser Asp Leu Thr Pro Val His Phe Thr Pro Leu Asp Ser Ser  
                                  195                      200                      205  
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                                  210                      215                      220  
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 Pro Ser Gly Ala Val Val Thr Leu Glu Cys Val Glu Lys Leu Ile Arg  
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&lt;210&gt; 5659

&lt;211&gt; 1263

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5659

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 1263

<210> 5660  
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 <212> PRT  
 <213> Homo sapiens

<400> 5660  
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 Glu Asn Asp Thr Asp Leu Asp Leu Arg Tyr Asp Thr Pro Glu Pro Tyr  
 50 55 60  
 Ser Glu Gln Asp Leu Trp Asp Trp Leu Arg Asn Ser Thr Asp Leu Gln  
 65 70 75 80  
 Glu Pro Arg Pro Arg Ala Lys Arg Arg Pro Ile Val Lys Thr Gly Lys  
 85 90 95  
 Phe Lys Lys Met Phe Gly Trp Gly Asp Phe His Ser Asn Ile Lys Thr  
 100 105 110  
 Val Lys Leu Asn Leu Leu Ile Thr Gly Lys Ile Val Asp His Gly Asn  
 115 120 125  
 Gly Thr Phe Ser Val Tyr Phe Arg His Asn Ser Thr Gly Gln Gly Asn  
 130 135 140  
 Val Ser Val Ser Leu Val Pro Pro Thr Lys Ile Val Glu Phe Asp Leu  
 145 150 155 160  
 Ala Gln Gln Thr Val Ile Asp Ala Lys Asp Ser Lys Ser Phe Asn Cys  
 165 170 175  
 Arg Ile Glu Tyr Glu Lys Val Asp Lys Ala Thr Lys Asn Thr Leu Cys  
 180 185 190  
 Asn Tyr Asp Pro Ser Lys Thr Cys Tyr Gln Glu Gln Thr Gln Ser His  
 195 200 205  
 Val Ser Trp Leu Cys Ser Lys Pro Phe Lys Val Ile Cys Ile Tyr Ile  
 210 215 220  
 Ser Phe Tyr Ser Thr Asp Tyr Lys Leu Val Gln Lys Val Cys Pro Asp  
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 Tyr Asn Tyr His Ser Asp Thr Pro Tyr Phe Pro Ser Gly

245

250

<210> 5661  
 <211> 578  
 <212> DNA  
 <213> Homo sapiens

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 180  
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 gggaaatcaa ggcctggaga gatgacttat ccagggtcac gtggcgagac agggacagca  
 420  
 ccagaaccag acccgagatg tccacgtcaa agtgacatgc tctgagaggc agcacacaca  
 480  
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<210> 5662  
 <211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 5662  
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 Gly Pro Ile Thr Gln Cys Thr Ala Arg Thr Gln Gln Glu Ala Pro Ala  
 35 40 45  
 Thr Gly Pro Asp Leu Pro His Pro Gly Pro Asp Gly His Leu Asp Thr  
 50 55 60  
 His Ser Gly Leu Ser Ser Asn Ser Ser Met Thr Thr Arg Glu Leu Gln  
 65 70 75 80  
 Gln Tyr Trp Gln Asn Gln Lys Cys Arg Trp Lys His Val Lys Leu Leu  
 85 90 95  
 Phe Glu Ile Ala Ser Ala Arg Ile Glu Glu Arg Lys Val Ser Lys Phe  
 100 105 110  
 Val Met Gly Lys Ser Arg Pro Gly Glu Met Thr Tyr Pro Gly Ser Arg  
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 Ser Asp Met Leu

4836

145

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 <211> 857  
 <212> DNA  
 <213> Homo sapiens

<400> 5663  
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 <211> 203  
 <212> PRT  
 <213> Homo sapiens

<400> 5664  
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 Gly Lys Glu Met Ala Glu Glu Tyr Asp Glu Lys Thr Ser Glu Leu Leu  
 35 40 45  
 Val Arg Lys Trp Arg Val Lys Ser Ala Leu Gly Ala Met Gly Gln Trp  
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 Gln Leu Glu Val Gly Asp Pro Ala Pro Leu Gly Ala Gly Asn Leu Gly

4837



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Arg Asn Ala Thr Val Tyr Gly Lys Gly Val Tyr Phe Ala Arg Arg
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 <212> DNA  
 <213> Homo sapiens

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taattctttt aaaaactgga tcattataga ggaggctttc tgtttgagaa catttttata
720
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<210> 5668  
 <211> 152  
 <212> PRT  
 <213> Homo sapiens

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<400> 5668
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Ser Lys Val Asp Gly Leu Val Asn Phe Glu Lys Leu Arg Met Ile Ser

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35 40 45  
 Lys Glu Ile Arg Gln Val Val Arg Met Thr Ser Ala Asn Met Asp Pro  
 50 55 60  
 Ala Met Met Phe Arg Gln Arg Ser Leu Ser Gln Gly Ser Thr Asn Ser  
 65 70 75 80  
 Asn Met Leu Asp Val Gln Gly Gly Ala His Lys Lys Arg Ala Arg Arg  
 85 90 95  
 Ser Ser Leu Leu Asn Ala Lys Lys Leu Tyr Glu Asp Ala Gln Met Ala  
 100 105 110  
 Arg Lys Val Lys Gln Tyr Leu Ser Ser Leu Asp Val Glu Thr Asp Glu  
 115 120 125  
 Glu Lys Phe Gln Met Met Ser Leu Gln Xaa Glu Pro Ala Tyr Gly Thr  
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 Cys Glu Tyr Lys Phe Ser Phe Met  
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<210> 5669  
 <211> 1842  
 <212> DNA  
 <213> Homo sapiens

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 1842

&lt;210&gt; 5670

&lt;211&gt; 591

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5670

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Gln	Gly	Gln	Gly	Pro	Arg	Ala	Glu	Ala	Met	Met	Arg	Ser	Ser	Ile	Glu
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Arg	Gly	Lys	Trp	Val	Phe	Phe	Gln	Asn	Cys	His	Leu	Ala	Pro	Ser	Trp
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Met	Pro	Ala	Leu	Glu	Arg	Leu	Ile	Glu	His	Ile	Asn	Pro	Asp	Lys	Val
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His	Arg	Asp	Phe	Arg	Leu	Trp	Leu	Thr	Ser	Leu	Pro	Ser	Asn	Lys	Phe
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 Ile Pro Tyr Lys Val Leu Lys Tyr Thr Ala Gly Glu Ile Asn Tyr Gly  
 195 200 205  
 Gly Arg Val Thr Asp Asp Trp Asp Arg Arg Cys Ile Met Asn Ile Leu  
 210 215 220  
 Glu Asp Phe Tyr Asn Pro Asp Val Leu Ser Pro Glu His Ser Tyr Ser  
 225 230 235 240  
 Ala Ser Gly Ile Tyr His Gln Ile Pro Pro Thr Tyr Asp Leu His Gly  
 245 250 255  
 Tyr Leu Ser Tyr Ile Lys Ser Leu Pro Leu Asn Asp Met Pro Glu Ile  
 260 265 270  
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 275 280 285  
 Phe Ala Leu Leu Gly Thr Ile Ile Gln Leu Gln Pro Lys Ser Ser Ser  
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 Ala Gly Ser Gln Gly Arg Glu Glu Ile Val Glu Asp Val Thr Gln Asn  
 305 310 315 320  
 Ile Leu Leu Lys Val Pro Glu Pro Ile Asn Leu Gln Trp Val Met Ala  
 325 330 335  
 Lys Tyr Pro Val Leu Tyr Glu Glu Ser Met Asn Thr Val Leu Val Gln  
 340 345 350  
 Glu Val Ile Arg Tyr Asn Arg Leu Leu Gln Val Ile Thr Gln Thr Leu  
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 370 375 380  
 Leu Glu Leu Met Ala Ala Ser Leu Tyr Asn Asn Thr Val Pro Glu Leu  
 385 390 395 400  
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 405 410 415  
 Met Asp Leu Leu Gln Arg Leu Asp Phe Leu Gln Ala Trp Ile Gln Asp  
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 450 455 460  
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 465 470 475 480  
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 Gln Pro Lys Glu Leu Tyr Thr Glu Met Ala Val Ile Trp Leu Leu Pro  
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 Thr Pro Asn Arg Lys Ala Gln Asp Gln Asp Phe Tyr Leu Cys Pro Ile  
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 Tyr Lys Thr Leu Thr Arg Ala Gly Thr Leu Ser Thr Thr Gly His Ser  
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 Thr Asn Tyr Val Ile Ala Val Glu Ile Pro Thr His Gln Pro Gln Arg

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818																		

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 Asn Arg Gln Pro Leu Ala Asn Glu Arg Ala Tyr Trp Thr Gly Tyr Gly  
                   115                  120                  125  
 Glu Gly Asn Ala Trp Cys Pro Gly Ala Leu Pro Asp Pro Glu Ile Val  
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 Arg Met Val Glu Ala Arg Lys Ser Leu Gly Glu Glu Tyr Thr Glu Asp  
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 Tyr Glu Gln Pro Arg Gly Lys Gly Ser Phe Pro Ala Met Ile Thr Pro  
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 Ala Tyr Gln Arg Ala Lys Lys Ala Asn Gln Leu Ala Ser Gln Val Glu  
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 Tyr Lys Arg Gly His Asp Glu Arg Ile Ser Arg Phe Ser Thr Val Ala  
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&lt;210&gt; 5673

&lt;211&gt; 1279

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5673

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<210> 5674  
 <211> 81  
 <212> PRT  
 <213> Homo sapiens

<400> 5674  
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<210> 5675  
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5676

&lt;211&gt; 145

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5676

Glu Val Thr Val Leu Cys Thr Gly Leu Ser Leu Ser Ile Gly Met Thr  
 1 5 10 15  
 Ala Thr Ser Gln Gly Cys Arg Ala Gly Gly Arg Cys Gly Trp Ala Cys  
 20 25 30  
 Ala Cys Phe Arg Arg Gln Gln Asn Arg Thr Gln Pro Ala Val Thr Pro  
 35 40 45  
 His Ser Arg Ser Arg Arg Thr Ala Ser Arg Met Ser Leu Gly Glu Gln  
 50 55 60  
 Gly Ser Thr Thr Gly Leu Thr Leu Gly His Arg Ala Pro Ala Pro Trp  
 65 70 75 80  
 Gly Met Ser Trp His Asn His Arg Arg Gln Val Asn Arg Ile Lys Ser  
 85 90 95  
 Arg Gln Cys Leu Ser Met Ser Glu Thr Ala Val Ala Arg Ala Trp Pro  
 100 105 110  
 Arg Ala Ala Gly Pro Ala Leu Ala Ile Ser Pro Gly Leu Ala Arg Gly  
 115 120 125  
 Gly Leu Gly Leu Thr Pro Arg Thr Arg Cys Pro Gln Arg Val Pro His  
 130 135 140  
 Cys  
 145

&lt;210&gt; 5677

&lt;211&gt; 477

<212> DNA

<213> Homo sapiens

**<400> 5677**

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 120  
 agggaaagca agatgcagca gtgaggccct ctctgggtatc cattcattca cttcactcaa  
 180  
 cagctgttta tgaccatgag caatacaagc cttgtgaaga tcctggagca gggcacaaagc  
 240  
 cgctgacgtc tgctccagtg agaagccctg ctgccttccc caattcgctt tctttccgca  
 300  
 gccgccgctg ccccgacccc ggatctgcat gtggaagtac ctggagctcc attccatgca  
 360  
 ccagctggag aagaccacca atgctgagat gagggagggtg ctggctgagc tgctggagct  
 420  
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 477

<210> 5678

**<211> 151**

<212> PRT

<213> Homo sapiens

<400> 5678

Met	Ala	Ser	Leu	Arg	Leu	Cys	Ser	Gly	His	Pro	Ser	Ser	Ser	Ser
1				5'				10						15
Ala	Ser	Thr	Ser	Leu	Ile	Ser	Ala	Leu	Val	Val	Phe	Ser	Ser	Trp
			20					25					30	Cys
Met	Glu	Trp	Thr	Ser	Arg	Tyr	Phe	His	Met	Gln	Ile	Arg	Gly	Arg
			35				40					45		Gly
Ser	Gly	Gly	Cys	Gly	Lys	Lys	Ala	Asn	Trp	Gly	Arg	Gln	Gln	Phe
	50					55					60			
Ser	Leu	Glu	Gln	Thr	Ser	Ala	Ala	Cys	Ala	Leu	Gln	Asp	Leu	His
65					70					75				80
Lys	Ala	Cys	Ile	Ala	His	Gly	His	Lys	Gln	Leu	Leu	Ser	Glu	Val
				85					90				95	Asn
Glu	Trp	Ile	Pro	Glu	Arg	Ala	Ser	Leu	Leu	His	Leu	Ala	Phe	Pro
			100					105					110	Thr
Ser	Asn	Pro	Leu	Gly	Gln	Arg	Gly	Gly	Val	Leu	Pro	Leu	Leu	His
			115				120					125		Gln
Cys	Pro	Phe	Leu	Pro	Trp	Ser	Gln	Ala	Ala	Ser	Phe	Gln	His	Arg
	130					135					140			Pro
Leu	Gln	Arg	Gly	Thr	Ala	Ala								
145					150									

<210> 5679

<211> 665

<212> DNA

<213> Homo sapiens

<400> 5679



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 120  
 tccacctccc agcatgctgg ctccaattcc acctctcagc agcctagccc tgaatccaca  
 180  
 ccacagcagc ctagtcttga atccacacca cagcagccta gccctgaatc cacaccacag  
 240  
 cattccagcc ttgaaaccac ctcccggcag ccagcattcc aagcccttcc agcaccgaa  
 300  
 atccgcccgt cctcttctg ccttttatct ccagatgcta acgtgaaggc agccctcaa  
 360  
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 420  
 gccctcggaa ctgtggctgt ggctctgggg gctctaggag ctgcctacta catcactgaa  
 480  
 tccttctgaa caagccccta ggcccacagt ctggcagacc tccaccagcc ccaggagttg  
 540  
 atagggtatg gcgctgggag aagatgttca gaatatctca aaagccaagt ccagaagatc  
 600  
 cagtttccat caaagggacc tctcttctga ccaaaattta aaaaaagaaa aaaaaaacga  
 660  
 aaaaa  
 665

<210> 5680  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

<400> 5680  
 Val Gly Arg Ile Tyr His Glu Glu Gly Gln Glu Glu Lys Val Arg Gly  
 1 5 10 15  
 Gln Thr Pro Pro Asp Ser Thr Ser Gln His Ala Gly Ser Asn Ser Thr  
 20 25 30  
 Ser Gln Gln Pro Ser Pro Glu Ser Thr Pro Gln Gln Pro Ser Pro Glu  
 35 40 45  
 Ser Thr Pro Gln Gln Pro Ser Pro Glu Ser Thr Pro Gln His Ser Ser  
 50 55 60  
 Leu Glu Thr Thr Ser Arg Gln Pro Ala Phe Gln Ala Leu Pro Ala Pro  
 65 70 75 80  
 Glu Ile Arg Arg Ser Ser Cys Cys Leu Leu Ser Pro Asp Ala Asn Val  
 85 90 95  
 Lys Ala Ala Pro Gln Ser Arg Lys Ala Glu Asn Leu Gln Glu Asn Pro  
 100 105 110  
 Pro Val Ile Val Thr Arg Val Leu Gln Ala Leu Gly Thr Val Ala Val  
 115 120 125  
 Ala Leu Gly Ala Leu Gly Ala Ala Tyr Tyr Ile Thr Glu Ser Leu  
 130 135 140

<210> 5681  
 <211> 1402  
 <212> DNA  
 <213> Homo sapiens

<400> 5681  
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60  
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120  
tagacattga tggaagcaga aacccaaaact cttcccttg agaatgcac catcctttca  
180  
gagggctctc tgcaggaagg acaccgatta tggattggca acctggaccc caaaattacc  
240  
gaataccacc tcctcaagct cctccagaag ttgggcaagg taaagcagtt tgacttcctc  
300  
ttccacaagt cagggtgctt ggagggacag cctcgaggct actgttttgt taactttgaa  
360  
actaagcagg aagcagagca agccatccag tgtctcaatg gcaagttggc cctgtccaag  
420  
aagctggtgg tgcgatgggc acatgctcaa gtaaagagat atgatacata caagaatgat  
480  
aagattcttc caatcagtct cgagccatcc tcaagcactg agcctactca gtctaacct  
540  
agtgtcactg caaagataaa agccattgaa gcaaaactga aaatgatggc ggaaaaatcct  
600  
gatgcagagt atccagcagc gcctgtttat tcctacttta agccaccaga taaaaaagg  
660  
actactccat attctagaac agcatggaaa tctcgaagat gatggttggt aattactgta  
720  
gcagcaaaag caaattggtc tccacaccta aaatcgtctg cctgtgtact ttgtagatgt  
780  
gaatgggtact attcaacgga gcacaatcac atgttagcat ttggtaacat aatgtttttg  
840  
gatgttctta tggatgttct tccctaaac tatgtatgga attgagcatc atccagaata  
900  
aatagcgttg tatcccaaat tgtgatttga accctgggat gctctaattg gctggttggt  
960  
ttggatttgt aactccagaa acattctata gtgtgccaga gcaaaaggca aatacacaaa  
1020  
atattattta aatcaggaaa ctaaaaatat taacatctat taaaaaattg agcatttttc  
1080  
tacgctcgtg tgtcttttac aacataaaga aaaagtaaaa ggcaggaggag gaagtgagag  
1140  
acagatttta aatcatgttc agaactgttg ttccagaatt tactacggca atccctccaa  
1200  
ctggactgaa aaagagaaaag ttcttgga aaaggagctg attctttgaa caaatgttgt  
1260  
agtaatctgt ttaagaatta tgcttattgt ttcaaatcc caactaggaa aacatgggtg  
1320  
atatcttaaa attgtttgtg ttgacaaaac tagaatcaaa ttaacattt tataccacat  
1380  
cacaagttct atttgggata tt  
1402

<210> 5682

<211> 190

<212> PRT

<213> Homo sapiens

<400> 5682

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Met Glu Ala Glu Thr Lys Thr Leu Pro Leu Glu Asn Ala Ser Ile Leu
 1          5          10          15
Ser Glu Gly Ser Leu Gln Glu Gly His Arg Leu Trp Ile Gly Asn Leu
 20          25          30
Asp Pro Lys Ile Thr Glu Tyr His Leu Leu Lys Leu Leu Gln Lys Phe
 35          40          45
Gly Lys Val Lys Gln Phe Asp Phe Leu Phe His Lys Ser Gly Ala Leu
 50          55          60
Glu Gly Gln Pro Arg Gly Tyr Cys Phe Val Asn Phe Glu Thr Lys Gln
 65          70          75          80
Glu Ala Glu Gln Ala Ile Gln Cys Leu Asn Gly Lys Leu Ala Leu Ser
 85          90          95
Lys Lys Leu Val Val Arg Trp Ala His Ala Gln Val Lys Arg Tyr Asp
100          105          110
His Asn Lys Asn Asp Lys Ile Leu Pro Ile Ser Leu Glu Pro Ser Ser
115          120          125
Ser Thr Glu Pro Thr Gln Ser Asn Leu Ser Val Thr Ala Lys Ile Lys
130          135          140
Ala Ile Glu Ala Lys Leu Lys Met Met Ala Glu Asn Pro Asp Ala Glu
145          150          155          160
Tyr Pro Ala Ala Pro Val Tyr Ser Tyr Phe Lys Pro Pro Asp Lys Lys
165          170          175
Arg Thr Thr Pro Tyr Ser Arg Thr Ala Trp Lys Ser Arg Arg
180          185          190

```

<210> 5683

<211> 328

<212> DNA

<213> Homo sapiens

<400> 5683

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ggatccatgc gttgccctag ggaggcctca gctgtcaagc actgaccatc tctgcagaca
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cgaggggctg acctgtactg gtgagtaagc attagccatg ggacgcacac aatccagcca
120
atgcttttcag aaggcaccac atgtgatgca cagcctctat ttacatgtga ataattacac
180
tgctgctttc tgggtaaaag tagggaaata cagtgttcca gggcatagga atgggtgctct
240
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300
acaaatttca ttctggatgc tgatgctg
328

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<210> 5684

<211> 103

<212> PRT

<213> Homo sapiens

<400> 5684

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Met Lys Phe Val Tyr Phe Lys Ala Leu Leu Thr Lys Pro Ala Ser His

```

```

      1           5           10           15
Gln Gln Asn Lys Leu Phe Tyr Pro Glu His His Ser Tyr Ala Leu Glu
      20           25           30
His Cys Ile Ser Leu Leu Leu Thr Arg Lys Gln Gln Cys Asn Tyr Ser
      35           40           45
His Val Asn Arg Gly Cys Ala Ser His Val Val Pro Ser Glu Ser Ile
      50           55           60
Gly Trp Ile Val Cys Val Pro Trp Leu Met Leu Thr His Gln Tyr Arg
      65           70           75           80
Ser Ala Leu Arg Val Cys Arg Asp Gly Gln Cys Leu Thr Ala Glu Ala
      85           90           95
Ser Leu Gly Gln Arg Met Asp
      100

```

&lt;210&gt; 5685

&lt;211&gt; 604

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5685

```

ccatgcagcc gcgtgggtgg caagcgggtg gtgtgctatg acgacagatt cattgtgaag
60
ctggcctacg agtctgacgg gatcgtggtt tccaacgaca cataccgtga cctccaaggc
120
gagcggcagg agtgaagcgt cttcatcgag gagcggctgc tcatgtactc ctctgtaaat
180
gacaagtatg ttccctccca gaggcctga cagacttggg gtccacaggg gaagccagag
240
gtgcccttgg caaggggtga gctgggggct gggctctgcg gggccctgtg gccatgggag
300
gttgccgggtc ttggctccag gcagctttga gaggagagc gatagctcac cacataggag
360
aatcagacc gggaccaggc aggctgtggg gtggagagag tggctaattt gggagataga
420
gccgtagcac ttatgagggg atgtatgtgg ttgatgggtc cagggtggcct ctctacgaac
480
caacatggca tctctcgagc agaggccatg ggccagtggg tgcgggctgc catccccga
540
cgacttcagg gagggagttc ccctaaaggt gcccatgggc tgtggccctc tagaccgggg
600
atcc
604

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&lt;210&gt; 5686

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5686

```

Pro Cys Ser Arg Val Gly Gly Lys Arg Val Val Cys Tyr Asp Asp Arg
1           5           10           15
Phe Ile Val Lys Leu Ala Tyr Glu Ser Asp Gly Ile Val Val Ser Asn
20           25           30
Asp Thr Tyr Arg Asp Leu Gln Gly Glu Arg Gln Glu Trp Lys Arg Phe

```

35                      40                      45  
 Ile Glu Glu Arg Leu Leu Met Tyr Ser Phe Val Asn Asp Lys Tyr Val  
 50                      55                      60  
 Pro Ser Gln Arg Pro  
 65

<210> 5687  
 <211> 328  
 <212> DNA  
 <213> Homo sapiens

<400> 5687  
 actctctccc gaccgcgtgg tgcgggtaag ggtggtggtg atggtggtgg tggtagcgcg  
 60  
 ccccggtctt gcatgcacgc ctgcgtgaac accccggggt cttcccggtg cacctgcccc  
 120  
 ggtggatccg aaactctggc tgacgggaag agctgtgaga atgtggatga atgtgtgggc  
 180  
 ctgcagccgg tgtgccccca ggggaccaca tgcattcaaca ccggtggaag cttccagtgt  
 240  
 gtcagccctg agtgcctccga gggcagcggc aatgtgagct acgtgaagac gtctccattc  
 300  
 cagtgtgagc ggaacccctg ccccatgg  
 328

<210> 5688  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 5688  
 Thr Leu Ser Arg Pro Arg Gly Ala Gly Lys Gly Gly Asp Gly Gly  
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 Gly Gly Glu Arg Pro Arg Leu Cys Met His Ala Cys Val Asn Thr Pro  
 20                      25                      30  
 Gly Ser Ser Arg Cys Thr Cys Pro Gly Gly Ser Glu Thr Leu Ala Asp  
 35                      40                      45  
 Gly Lys Ser Cys Glu Asn Val Asp Glu Cys Val Gly Leu Gln Pro Val  
 50                      55                      60  
 Cys Pro Gln Gly Thr Thr Cys Ile Asn Thr Gly Gly Ser Phe Gln Cys  
 65                      70                      75                      80  
 Val Ser Pro Glu Cys Pro Glu Gly Ser Gly Asn Val Ser Tyr Val Lys  
 85                      90                      95  
 Thr Ser Pro Phe Gln Cys Glu Arg Asn Pro Cys Pro Met  
 100                      105

<210> 5689  
 <211> 1897  
 <212> DNA  
 <213> Homo sapiens

<400> 5689  
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tgaacaatca gaatcataga agagtgtgag cactgggcct ttgtcttcca ggtgggacag  
120  
tgtgtggtgg tcttcagcca ggctcctagt gggagagccc cactcagccc cagtttgaac  
180  
tctcgcccat cacctatcag tgccactncc tccagctctc gtctctgaaa cccgagagta  
240  
ccgctctcag tctccagtaa gaagcatgga tgaagctcct tgtgttaacg gccgctgggg  
300  
aacactgaga cccagggctc aaaggcagac tcctcagggt cccgggaagg gagcctttcc  
360  
ccagccagag gagacggctc tcctatcctc aatggtggga gtttgtctcc aggaacggca  
420  
gctgtgggtg gctcttcttt ggacagtcct gtacaggcca tatctccaag tactccatct  
480  
gctgctgaag gatacgacct gaaaatagga ctttctttgg cccccgacg aggatcaacc  
540  
agatcagaaa gatctgagat taggatccat agatctgaat tgggatctaa acccgcttcc  
600  
agtagtaatc ccatggatgg catggacaat aggacagttg ggggaagtat gagacacctt  
660  
cctgaacaga caaatggtgt gcatacccca cctcacgtgg ccagtgcctt tgcaggggcc  
720  
gtctccccag gtgcctcgcg tcggagtctg gaagccatca aagcgatgtc ctccaaaggc  
780  
ccctcgccct ctgcagcact aagtcctcct cttgggtctt ctccaggctc tcctgggagc  
840  
cagagtttga gcagtggaga aacagtgcct atccctcgcc cagggcctgc ccaaggagat  
900  
ggacattcct tacctcccat tgcctgcccg cttgggccacc accctccaca gtccctaaat  
960  
gttgccaaac ccctatacca gagtatgaac tgcaagccca tgcagatgta cgtgctggac  
1020  
attaagaca ccaaggagaa ggggcgggtc aaatggaaag tatttaatat cagttctgtg  
1080  
gttggaacct ctgaaaccag cctgcatacc gtggtacaag gcaggggtga actcatcata  
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1200  
tactttgtac gagcaaagag ataattgtgt ctaaacccct ttccttttct gtggctttta  
1260  
atttgggaatt ttccagtgtg taagcatttg gactgagaat tgggaaaaca aaattactcc  
1320  
cagaagccaa aactctttta ttcccaaccg aagtcactcc aggtgggat caaatctcca  
1380  
ttaagaaaaa aaattatata taaatatata tatatatatt atatagccaa ctctgttgac  
1440  
aaaaaaaggg agagatttcc atcctggttc agataaagtt gttgctgtgt tttaacaggg  
1500  
gctgggctgc ctttttctac cttgctggtg actagaccaa gaagttagag aatagactaa  
1560  
catcagtaac ttcccaaaag aaactgaaga gccccctgta aatctttatg tggccttctt  
1620  
ggagttaaaa aatgaaaggg catatgtaag ttgcaaaggt ggagggtttt agactctcat  
1680

gcttcagggtg ctgtcgggggt aaaagtaact gtttttcccc ttctcttaaa accacagagg  
 1740  
 acctgtgaca gctctgcaga aatgccagtg cctggccccc tcttgccctt tatggctgag  
 1800  
 gaaagttacc caacaaagga ttttattcca catttgtgtg ccgggtcatt gtgaaataat  
 1860  
 gtttatgcag ccaacatctg aaaaaaaaaa aaaaaaa  
 1897

<210> 5690  
 <211> 54  
 <212> PRT  
 <213> Homo sapiens

<400> 5690  
 Thr Ile Arg Ile Ile Glu Glu Cys Glu His Trp Ser Phe Val Phe Gln  
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 Val Gly Gln Cys Val Val Val Phe Ser Gln Ala Pro Ser Gly Arg Ala  
 20 25 30  
 Pro Leu Ser Pro Ser Leu Asn Ser Arg Pro Ser Pro Ile Ser Ala Thr  
 35 40 45  
 Xaa Ser Ser Ser Arg Ser  
 50

<210> 5691  
 <211> 1227  
 <212> DNA  
 <213> Homo sapiens

<400> 5691  
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 120  
 catcaaaacg aggacgaacc cattcgtgtt agctaccatc ggaatatcca ctataattca  
 180  
 gtggtgaatc ctaacaaggc caccattggt gtggggctgg gctgccatca ttcaaaccag  
 240  
 ggtttgaga gcagtctctg atgaagaatg ccataaaac atcgaggag tcatggattg  
 300  
 aacagcagat gctagaagac aagaaacggg ccacagactg ggaggccaca aatgaagcca  
 360  
 tcgaggagca ggtggctcgg gaatcctacc tgcagtgggt gcgggatcag gagaacagg  
 420  
 ctgcagggt ccgaggcccc agccagcccc ggaaagccag cgccacatgc agttcgcca  
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 600  
 caggcactgt tttagctctt gccaaacctc ctctgccctg tgcgccaggt acaagcagtc  
 660  
 agttctcggc agggggccgac cgggcaactt ccccccttgt gtccctctac cctgctttgg  
 720

agtgccgggc cctcattcag cagatgtccc cctctgcctt tggctctgaat gactgggatg  
 780  
 atgatgagat cctagcttcg gtgctggcag tgtcccaaca ggaataccta gacagtatga  
 840  
 agaaaaacaa agtgcacaga gacccgcccc cagacaagag ttgatggaga cccagggatt  
 900  
 ggacaccatc tcccaacccc agggattcgg gcaaggggtgc cgaagataga caagaggcac  
 960  
 acagagacag accaactggc agccaggcag cccagagga gagagacatt cagacagagg  
 1020  
 aaagtctccc tgccctcat tcttccaag atgagaaaaa cttgccgcca cccccgaca  
 1080  
 ctgatgccag ggaggtggga ggaagaagtg gaaatttcc cttccagta ccccaagaa  
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 cgtctgagcc ttcaatgttg aatttttct ttattaaaaa tacttttacc ttataaaatc  
 1200  
 aactaatcaa aatgaaaaa aaaaaaa  
 1227

<210> 5692

<211> 86

<212> PRT

<213> Homo sapiens

<400> 5692

Lys	Arg	Lys	Asn	Asn	Cys	His	Gly	Asn	His	Ile	Glu	Met	Gln	Ala	Met
1			5					10					15		
Ala	Glu	Met	Tyr	Asn	Arg	Pro	Val	Glu	Val	Tyr	Gln	Tyr	Ser	Thr	Glu
			20					25					30		
Pro	Ile	Asn	Thr	Phe	His	Gly	Ile	His	Gln	Asn	Glu	Asp	Glu	Pro	Ile
			35				40					45			
Arg	Val	Ser	Tyr	His	Arg	Asn	Ile	His	Tyr	Asn	Ser	Val	Val	Asn	Pro
			50			55					60				
Asn	Lys	Ala	Thr	Ile	Gly	Val	Gly	Leu	Gly	Cys	His	His	Ser	Asn	Gln
					70				75					80	
Gly	Leu	Gln	Ser	Ser	Leu										
					85										

<210> 5693

<211> 389

<212> DNA

<213> Homo sapiens

<400> 5693

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 gacactgggg cacctctcgc cctgtcccaa ggccacgctg gctctcttca ggcccatggc  
 120  
 tccaaccccg cagggccctc cgtcgggcgg tcccaactta gtcgtccctc gacgcggcct  
 180  
 ctgggccctc cgggttgagg gagctgacgg cagcttcccc ccacaggtgc ctctgagcct  
 240  
 cggaacatga tctacatgag ccgcttgagg atctggggcg agggcacacc cttccggaac  
 300



tttgaggagt tcctgcacgc catcgagaag aggggcgttg gcgccatgga gatcgtggcc  
 360  
 atggacatga aggtcagcgg gcatgtaca  
 389

<210> 5694  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<400> 5694  
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 Met Ser Arg Leu Gly Ile Trp Gly Glu Gly Thr Pro Phe Arg Asn Phe  
 20 25 30  
 Glu Glu Phe Leu His Ala Ile Glu Lys Arg Gly Val Gly Ala Met Glu  
 35 40 45  
 Ile Val Ala Met Asp Met Lys Val Ser Gly His Val  
 50 55 60

<210> 5695  
 <211> 1417  
 <212> DNA  
 <213> Homo sapiens

<400> 5695  
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 120  
 cccccagata gggggactga tggcaaggcc cagctggtgg tgcaactcggc ctttgagcag  
 180  
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<211> 368

<212> PRT

<213> Homo sapiens

<400> 5696

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245	250	255
Tyr Gly Lys Gly Val Tyr Phe Ala Arg Arg Ala Ser Leu Ser Val Gln		
260	265	270
Asp Arg Tyr Ser Pro Pro Asn Ala Asp Gly His Lys Ala Val Phe Val		
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Ala Arg Val Leu Thr Gly Asp Tyr Gly Gln Gly Arg Arg Gly Leu Arg		
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&lt;210&gt; 5697

&lt;211&gt; 3362

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5697

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&lt;210&gt; 5698

&lt;211&gt; 403

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5698

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 100 105 110  
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Ala Val Glu Trp Leu Val Leu Thr Val Leu Arg Asp Thr Arg Pro Ala
      180              185              190
Cys Ala Tyr Glu Pro Met Asp Phe Val Met Ala Leu Ile Tyr Asp Met
      195              200              205
Val Leu Leu Val Val Thr Leu Gly Leu Ala Leu Phe Thr Leu Cys Gly
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225              230              235              240
Phe Leu Ser Val Leu Ile Trp Val Ala Trp Met Thr Met Tyr Leu Phe
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Gly Asn Val Lys Leu Gln Gln Gly Asp Ala Trp Asn Asp Pro Thr Leu
      260              265              270
Ala Ile Thr Leu Ala Ala Ser Gly Trp Val Phe Val Ile Phe His Ala
      275              280              285
Ile Pro Glu Ile His Cys Thr Leu Leu Pro Ala Leu Gln Glu Asn Thr
      290              295              300
Pro Asn Tyr Phe Asp Thr Ser Gln Pro Arg Met Arg Glu Thr Ala Phe
305              310              315              320
Glu Glu Asp Val Gln Leu Pro Arg Ala Tyr Met Glu Asn Lys Ala Phe
      325              330              335
Ser Met Asp Glu His Asn Ala Ala Leu Arg Thr Ala Gly Phe Pro Asn
      340              345              350
Gly Ser Leu Gly Lys Arg Pro Ser Gly Ser Leu Gly Lys Arg Pro Ser
      355              360              365
Ala Pro Phe Arg Ser Asn Val Tyr Gln Pro Thr Glu Met Ala Val Val
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<210> 5699  
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 <212> DNA  
 <213> Homo sapiens

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<210> 5700

<211> 197

<212> PRT

<213> Homo sapiens

<400> 5700

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		20					25					30			
Glu	Pro	Gly	Pro	Glu	Pro	Leu	Pro	Trp	Leu	Gly	Lys	Met	Ala	Gln	Leu

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 Gly Pro Ile Ser Asp Ala Lys Glu Asn Pro Tyr Gly Glu Asp Asp Asn  
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 Lys Ser Pro Phe Pro Leu Gln Pro Lys Asn Lys Arg Ser Tyr Ala Gln  
 65 70 75 80  
 Asn Val Thr Val Trp Ile Lys Pro Ser Gly Leu Gln Thr Asp Val Gln  
 85 90 95  
 Lys Ile Leu Arg Asn Ala Arg Lys Leu Pro Glu Lys Thr Gln Thr Phe  
 100 105 110  
 Tyr Lys Glu Leu Asn Arg Leu Arg Lys Ala Ala Leu Ala Phe Gly Phe  
 115 120 125  
 Leu Asp Leu Leu Lys Gly Val Ala Asp Met Leu Glu Arg Glu Cys Thr  
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 Leu Leu Pro Glu Thr Ala His Pro Asp Ala Ala Phe Gln Leu Thr His  
 145 150 155 160  
 Ala Ala Gln Gln Leu Lys Leu Ala Ser Thr Gly Thr Ser Glu Tyr Ala  
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 Ser Thr Glu Arg Ile  
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&lt;210&gt; 5701

&lt;211&gt; 1885

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5701

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&lt;210&gt; 5702

&lt;211&gt; 348

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5702

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 35 40 45  
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 50 55 60  
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130          135          140
Lys Ser Ser Ile Lys Arg Val Leu Ala Ile Thr Thr Val Leu Ser Leu
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His Leu Ser Ala Glu Asp Phe Asn Ile Tyr Gly His Gly Gly Arg Gln
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Phe Trp Leu Val Ser Ser Cys Phe Phe Phe Leu Val Tyr Ser Leu Val
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Val Ile Leu Pro Lys Thr Pro Leu Lys Glu Arg Ile Ser Leu Pro Ser
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Leu Cys Cys Val Asp Ala Thr Thr Phe Leu Tyr Phe Ser Phe Phe Ala
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Pro Leu Ile Tyr Val Ala Phe Leu Arg Gly Phe Phe Gly Ser Glu Pro
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Lys Ile Leu Phe Xaa Leu Gln Met Pro Ser Gly Arg Asp Arg Gly Ala
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&lt;210&gt; 5703

&lt;211&gt; 1496

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5703

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&lt;210&gt; 5704

&lt;211&gt; 269

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5704

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Val Glu Ala Ile Ser Leu Ser Ile Leu Val Gly Ser Ser Val Asp Tyr
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Cys Val His Leu Val Glu Gly Tyr Leu Leu Ala Gly Glu Asn Leu Pro
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Pro His Gln Ala Glu Asp Ala Arg Thr Gln Arg Gln Trp Arg Thr Leu
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Glu Ala Val Arg His Val Gly Val Ala Ile Val Ser Ser Ala Leu Thr
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Ala Lys Phe Gly Lys Ile Val Ala Leu Asn Thr Gly Val Ser Ile Leu
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Tyr Thr Leu Thr Val Ser Thr Ala Leu Leu Gly Ile Met Ala Pro Ser
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          225          230          235          240
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&lt;210&gt; 5705

&lt;211&gt; 768

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5705

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<212> PRT

<213> Homo sapiens

<400> 5708

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Glu	Glu	Lys	Val	Phe	Glu	Ala	Val	Ile	Ser	Trp	Ile	Asn	Tyr	Glu	Lys
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Glu	Thr	Arg	Leu	Glu	His	Met	Ala	Lys	Leu	Met	Glu	His	Val	Arg	Leu
145			150						155					160	
Pro	Leu	Leu	Pro	Arg	Asp	Tyr	Leu	Val	Gln	Thr	Val	Glu	Glu	Glu	Ala
		165						170						175	
Leu	Ile	Lys	Asn	Asn	Asn	Thr	Cys	Lys	Asp	Phe	Leu	Ile	Glu	Ala	Met
		180						185					190		
Lys	Tyr	His	Leu	Leu	Pro	Leu	Asp	Gln	Arg	Leu	Leu	Ile	Lys	Asn	Pro
	195					200						205			
Arg	Thr	Lys	Pro	Arg	Thr	Pro	Val	Ser	Leu	Pro	Lys	Val	Met	Ile	Val
	210				215						220				
Val	Gly	Gly	Gln	Ala	Pro	Lys	Ala	Ile	Arg	Ser	Val	Glu	Cys	Tyr	Asp
225			230						235					240	
Phe	Glu	Glu	Asp	Arg	Trp	Asp	Gln	Ile	Ala	Glu	Leu	Pro	Ser	Arg	Arg
		245						250						255	
Cys	Arg	Ala	Gly	Val	Val	Phe	Met	Ala	Gly	His	Val	Tyr	Ala	Val	Gly
		260						265					270		
Gly	Phe	Asn	Gly	Ser	Leu	Arg	Val	Arg	Thr	Val	Asp	Val	Tyr	Asp	Gly
	275					280						285			
Val	Lys	Asp	Gln	Trp	Thr	Ser	Ile	Ala	Ser	Met	Gln	Glu	Arg	Arg	Ser
	290				295						300				
Thr	Leu	Gly	Ala	Ala	Val	Leu	Asn	Asp	Leu	Leu	Tyr	Ala	Val	Gly	Gly

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305          310          315          320
Phe Asp Gly Ser Thr Gly Leu Ala Ser Val Glu Ala Tyr Ser Tyr Lys
          325          330          335
Thr Asn Glu Trp Phe Phe Val Ala Pro Met Asn Thr Arg Arg Ser Ser
          340          345          350
Val Gly Val Gly Val Val Glu Gly Lys Leu Tyr Ala Val Gly Gly Tyr
          355          360          365
Asp Gly Ala Ser Arg Gln Cys Leu Ser Thr Val Glu Gln Tyr Asn Pro
          370          375          380
Ala Thr Asn Glu Trp Ile Tyr Val Ala Asp Met Ser Thr Arg Arg Ser
385          390          395          400
Gly Ala Gly Val Gly Val Leu Ser Gly Gln Leu Tyr Ala Thr Gly Gly
          405          410          415
His Asp Gly Pro Leu Val Arg Lys Ser Val Glu Val Tyr Asp Pro Gly
          420          425          430
Thr Asn Thr Trp Lys Gln Val Ala Asp Met Asn Met Cys Arg Arg Asn
          435          440          445
Ala Gly Val Cys Ala Val Asn Gly Leu Leu Tyr Val Val Gly Gly Asp
          450          455          460
Asp Gly Ser Cys Asn Leu Ala Ser Val Glu Tyr Tyr Asn Pro Val Thr
465          470          475          480
Asp Lys Trp Thr Leu Leu Pro Thr Asn Met Ser Thr Gly Arg Ser Tyr
          485          490          495
Ala Gly Val Ala Val Ile His Lys Ser Leu
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<210> 5709  
 <211> 1805  
 <212> DNA  
 <213> Homo sapiens

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<400> 5709
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120
cagggtcagcc tgattgagcg gaatgctttt gacgggctgg cttcacttgt ggaactcaac
180
ttggcccaca ataacctctc ttctttgccc catgacctct ttaccccgct gaggtacctg
240
gtggagttgc atctacacca caacccttgg aactgtgatt gtgacattct gtggctagcc
300
tggtggcttc gagagtatat acccaccat tccacctgct gtggccgctg tcatgctccc
360
atgcacatgc gaggcgcta cctcgtggag gtggaccagg cctccttcca gtgctctgcc
420
cccttcacatc tggacgcacc tcgagacctc aacatttctg agggtcggat ggcagaactt
480
aagtgtcgga ctccccctat gtcctccgtg aagtgggttc tgcccaatgg gacagtgtctc
540
agccacgcct cccgccaccc aaggatctct gtcctcaacg acggcacctt gaacttttcc
600
cacgtgtctc ttccagacac tgggggtgtac acatgcatgg tgaccaatgt tgcaggcaac
660

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tccaacgcct cggcctacct caatgtgagc acggctgagc ttaacacctc caactacagc  
 720  
 ttcttcacca cagtaacagt ggagaccacg gagatctcgc ctgaggacac aacgcgaaag  
 780  
 tacaagcctg ttcttaccac gtccactggt taccagccgg catataccac ctctaccacg  
 840  
 gtgctcattc agactaccgg tgtgcccaag cagggtggcag taccgcgcac agacaccact  
 900  
 gacaagatgc agaccagcct ggatgaagtc atgaagacca ccaagatcat cattggctgc  
 960  
 tttgtggcag tgactctgct agctgccgcc atgttgattg tcttctataa acttcgtaag  
 1020  
 cggcaccacg agcggagtac agtcacagcc gcccgactg ttgagataat ccagggtggac  
 1080  
 gaagacatcc cagcagcaac atccgcagca gcaacagcag ctccgtccgg tgtatcaggt  
 1140  
 gagggggcag tagtgctgcc cacaattcat gaccatatta actacaacac ctacaaacca  
 1200  
 gcacatgggg cccactggac agaaaacagc ctggggaact ctctgcaccc cacagtcacc  
 1260  
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 1320  
 atatgactcc cctcccccaa aaaaacttat aaaatgcaat agaatgcaca caaagacagc  
 1380  
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 1440  
 ggctgggtta aaaaaacaga ttatattaaa atttaaagac aaaaagtcaa aacaaaaata  
 1500  
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 1560  
 gtacaagcca caagttaact tgctatgctg ccagaaggga tttctggtat aaggttgaaa  
 1620  
 ttgctgagat aaaataaact aaaacaaca acatccttaa agaggtaggg tgtgggctgc  
 1680  
 tgagggggca agagggatag actgaatctg tcatttttta gaagatgctt cataggacac  
 1740  
 aggactatcc atttctacag acatctttct taagccgaga gctgtctttg cagaattatc  
 1800  
 ttatt  
 1805

&lt;210&gt; 5710

&lt;211&gt; 441

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5710

Asn Leu Thr Pro Leu Val Asp Met Glu Glu Leu Glu Met Ser Gly Asn  
 1 5 10 15  
 His Phe Pro Glu Ile Arg Pro Gly Ser Phe His Gly Leu Ser Ser Leu  
 20 25 30  
 Lys Lys Leu Trp Val Met Asn Ser Gln Val Ser Leu Ile Glu Arg Asn  
 35 40 45  
 Ala Phe Asp Gly Leu Ala Ser Leu Val Glu Leu Asn Leu Ala His Asn

```

      50      55      60
Asn Leu Ser Ser Leu Pro His Asp Leu Phe Thr Pro Leu Arg Tyr Leu
65      70      75      80
Val Glu Leu His Leu His His Asn Pro Trp Asn Cys Asp Cys Asp Ile
      85      90      95
Leu Trp Leu Ala Trp Trp Leu Arg Glu Tyr Ile Pro Thr Asn Ser Thr
100      105      110
Cys Cys Gly Arg Cys His Ala Pro Met His Met Arg Gly Arg Tyr Leu
115      120      125
Val Glu Val Asp Gln Ala Ser Phe Gln Cys Ser Ala Pro Phe Ile Met
130      135      140
Asp Ala Pro Arg Asp Leu Asn Ile Ser Glu Gly Arg Met Ala Glu Leu
145      150      155      160
Lys Cys Arg Thr Pro Pro Met Ser Ser Val Lys Trp Leu Leu Pro Asn
165      170      175
Gly Thr Val Leu Ser His Ala Ser Arg His Pro Arg Ile Ser Val Leu
180      185      190
Asn Asp Gly Thr Leu Asn Phe Ser His Val Leu Leu Ser Asp Thr Gly
195      200      205
Val Tyr Thr Cys Met Val Thr Asn Val Ala Gly Asn Ser Asn Ala Ser
210      215      220
Ala Tyr Leu Asn Val Ser Thr Ala Glu Leu Asn Thr Ser Asn Tyr Ser
225      230      235      240
Phe Phe Thr Thr Val Thr Val Glu Thr Thr Glu Ile Ser Pro Glu Asp
245      250      255
Thr Thr Arg Lys Tyr Lys Pro Val Pro Thr Thr Ser Thr Gly Tyr Gln
260      265      270
Pro Ala Tyr Thr Thr Ser Thr Thr Val Leu Ile Gln Thr Thr Arg Val
275      280      285
Pro Lys Gln Val Ala Val Pro Ala Thr Asp Thr Thr Asp Lys Met Gln
290      295      300
Thr Ser Leu Asp Glu Val Met Lys Thr Thr Lys Ile Ile Ile Gly Cys
305      310      315      320
Phe Val Ala Val Thr Leu Leu Ala Ala Ala Met Leu Ile Val Phe Tyr
325      330      335
Lys Leu Arg Lys Arg His Gln Gln Arg Ser Thr Val Thr Ala Ala Arg
340      345      350
Thr Val Glu Ile Ile Gln Val Asp Glu Asp Ile Pro Ala Ala Thr Ser
355      360      365
Ala Ala Ala Thr Ala Ala Pro Ser Gly Val Ser Gly Glu Gly Ala Val
370      375      380
Val Leu Pro Thr Ile His Asp His Ile Asn Tyr Asn Thr Tyr Lys Pro
385      390      395      400
Ala His Gly Ala His Trp Thr Glu Asn Ser Leu Gly Asn Ser Leu His
405      410      415
Pro Thr Val Thr Thr Ile Ser Glu Pro Tyr Ile Ile Gln Thr His Thr
420      425      430
Lys Asp Lys Val Gln Glu Thr Gln Ile
435      440

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&lt;210&gt; 5711

&lt;211&gt; 1142

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<400> 5711  
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 60  
 ggaagtggg aactttttat tttgtttatc ttgtttttaa tacaggatgt ttgccacacg  
 120  
 agtcactcga gagaatctct gagtccctggc gagggctttc tgaggcttcg tgtattagca  
 180  
 gctgttgcct tccaactcag cggcagggttt gcctttcccc acggacactc tggaccttgt  
 240  
 agtcctcaca gcttccctgt ctattgagca gataggaagc cgtgtcaaat atgtggcacc  
 300  
 ttgaggaaat gcctagttaa tgacagacaa cttgcctttg atgattttca agagagttgt  
 360  
 gctatgatgt ggcaaaagta tgcaggaagc aggcgggtcaa tgcctctggg agcaaggatc  
 420  
 cttttccacg gtgtgttcta tgccgggggc tttgccattg tgtattacct cattcaaaag  
 480  
 ttctattcca gggctttata ttacaagttg gcagtggagc agctgcagag ccatcccgag  
 540  
 gcacaggaag ctctggggccc tcctctcaac atccattatc tcaagctcat cgacagggaa  
 600  
 aacttcgtgg acattgttga tgccaagttg aagattcttg tctctggatc caaatcagag  
 660  
 ggctttctct acgtccactc atccagaggt ggcccttttc agagggtggca ccttgacgag  
 720  
 gtctttttag agctcaagga tggtcagcag attcctgtgt tcaagctcag tggggaaaac  
 780  
 ggtgatgaag tgaanaagga gtagagacga cccagaagac ccagcttgct tctagtccat  
 840  
 ccttccctca tctctaccat atggccactg ggggtggtggc ccctctcagt gacagacact  
 900  
 cctgcaaccc agttttccag ccaccagtgg gatgatggta tgtgccagca catggttaatt  
 960  
 ttggtgtaat tctaacttgg gcacaacaaa tgctatttgt cattttttaa ctgaatccga  
 1020  
 aagaaactcc tattataaat ttaagataat gtaatgtatt tgaaagtgct ttgtataaaa  
 1080  
 aagcacatga taaaaggaat cagaattaat aaaatggttg ttgatcttta aaaaaaaaaa  
 1140  
 1142

<210> 5712  
 <211> 145  
 <212> PRT  
 <213> Homo sapiens

<400> 5712  
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 1 5 10 15  
 Arg Ile Leu Phe His Gly Val Phe Tyr Ala Gly Gly Phe Ala Ile Val  
 20 25 30  
 Tyr Tyr Leu Ile Gln Lys Phe His Ser Arg Ala Leu Tyr Tyr Lys Leu  
 35 40 45

Ala Val Glu Gln Leu Gln Ser His Pro Glu Ala Gln Glu Ala Leu Gly  
 50 55 60  
 Pro Pro Leu Asn Ile His Tyr Leu Lys Leu Ile Asp Arg Glu Asn Phe  
 65 70 75 80  
 Val Asp Ile Val Asp Ala Lys Leu Lys Ile Pro Val Ser Gly Ser Lys  
 85 90 95  
 Ser Glu Gly Leu Leu Tyr Val His Ser Ser Arg Gly Gly Pro Phe Gln  
 100 105 110  
 Arg Trp His Leu Asp Glu Val Phe Leu Glu Leu Lys Asp Gly Gln Gln  
 115 120 125  
 Ile Pro Val Phe Lys Leu Ser Gly Glu Asn Gly Asp Glu Val Lys Lys  
 130 135 140  
 Glu  
 145

&lt;210&gt; 5713

&lt;211&gt; 1996

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5713

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 agtgacacaa ataaaccctt ggacccctt gttccctcag ctctaagggc cgcgatgttg  
 120  
 tacctagaag actatctgga aatgattgag cagcttccta tggatctgcg ggaccgcttc  
 180  
 acggaaatgc gcgagatgga cctgcaggcg cagaatgcaa tggatcaact agaacaaga  
 240  
 gtcagtgaat tctttatgaa tgcaaagaaa aataaacctg agtggaggga agagcaaag  
 300  
 gcatccatca aaaaagacta ctataaagct ttggaagatg cagatgagaa gggtcagttg  
 360  
 gcaaaccaga tatatgactt ggtagatcga cacttgagaa agctggatca ggaactggct  
 420  
 aagtttaaaa tggagctgga agctgataat gctggaatta cagaaatatt agagaggcga  
 480  
 tctttggaat tagacactcc ttcacagcca gtgaacaatc accatgctca ttcacatact  
 540  
 ccagtggaaa aaaggaaata taatccaact tctcaccata cgacaacaga tcatattcct  
 600  
 gaaaagaaat ttaaattcga agctcttcta tccaccctta cgtcagatgc ctctaaggaa  
 660  
 aatacactag gttgtcgaaa taataattcc acagcctctt ctaacaatgc ctacaatgtg  
 720  
 aattcctccc aacctctggg atcctataac attggctcgt tatcttcagg aactggtgca  
 780  
 ggggcaatta ccatggcagc tgctcaagca gttcaggcta cagctcagat gaaggaggga  
 840  
 cgaagaacat caagtttaaa agccagttat gaagcattta agaataatga ctttcagttg  
 900  
 ggaaaagaat tttcaatggc cagggaaca gttggctatt catcatcttc ggcacttatg  
 960

acaacattaa cacagaatgc cagttcatca gcagccgact cacggagtgg tcgaaagagc  
 1020  
 aaaaacaaca acaagtcttc aagccagcag tcatcatctt cctcctcctc ttcttcctta  
 1080  
 tcatcgtgtt cttcatcacc aactgttgta caagaaatct ctcaacaaac aactgtagt  
 1140  
 ccagaatctg attcaaatag tcagggtgat tggacttacg acccaaatga acctcgatac  
 1200  
 tgcatttgta atcaggtatc ttatggtgag atgggtggat gtgataacca agattgccct  
 1260  
 atagaatggt tccattatgg ctgcgttgga ttgacagagg caccaaaagg caaatggtac  
 1320  
 tgtccacagt gcactgctgc aatgaagaga agaggcagca gacacaaata aagggtggcc  
 1380  
 ttttgtttga tgaagaaata aacttcagct gaagatttta tataggactt taaaaagaag  
 1440  
 agaagagaaa gaagaacaaa tgcatttcca ggcaaccact taaaggattt acatagacaa  
 1500  
 tcctataaga tcttgaactt gaattttatg ggttgatatt taataatgta agtaaattat  
 1560  
 ttatgcactc ctggtgtgct atgaatatta ttccagttag ccttggatta tttcagtggc  
 1620  
 caacatatgc agacatttgt actcctcaac ctttttctca aagtaatggg cattctatga  
 1680  
 ttttagactc aaggaattcc aatgatgaag attttaagga aagtatttta tattcaacag  
 1740  
 gtatattctg ctgcactgtac tgtactccag agctgttatg taacactgta tataaatggt  
 1800  
 tgcaaaaaaa aaaaagtcag tgcttctaaa aagaatttaa gataatggtt tttaaatgc  
 1860  
 ctttataata agctttgttt ctttgtgaaa ctaattcagc aggctgaagg aaatggttca  
 1920  
 tgtgataatg tgggctggta tcctctagag tacctgggta cataaacgga aactcctgtt  
 1980  
 ggttaaaagt attttg  
 1996

<210> 5714  
 <211> 408  
 <212> PRT  
 <213> Homo sapiens

<400> 5714  
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 20 25 30  
 Val Ser Glu Phe Phe Met Asn Ala Lys Lys Asn Lys Pro Glu Trp Arg  
 35 40 45  
 Glu Glu Gln Met Ala Ser Ile Lys Lys Asp Tyr Tyr Lys Ala Leu Glu  
 50 55 60  
 Asp Ala Asp Glu Lys Val Gln Leu Ala Asn Gln Ile Tyr Asp Leu Val  
 65 70 75 80  
 Asp Arg His Leu Arg Lys Leu Asp Gln Glu Leu Ala Lys Phe Lys Met



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      85      90      95
Glu Leu Glu Ala Asp Asn Ala Gly Ile Thr Glu Ile Leu Glu Arg Arg
      100      105      110
Ser Leu Glu Leu Asp Thr Pro Ser Gln Pro Val Asn Asn His His Ala
      115      120      125
His Ser His Thr Pro Val Glu Lys Arg Lys Tyr Asn Pro Thr Ser His
      130      135      140
His Thr Thr Thr Asp His Ile Pro Glu Lys Lys Phe Lys Ser Glu Ala
      145      150      155      160
Leu Leu Ser Thr Leu Thr Ser Asp Ala Ser Lys Glu Asn Thr Leu Gly
      165      170      175
Cys Arg Asn Asn Asn Ser Thr Ala Ser Ser Asn Asn Ala Tyr Asn Val
      180      185      190
Asn Ser Ser Gln Pro Leu Gly Ser Tyr Asn Ile Gly Ser Leu Ser Ser
      195      200      205
Gly Thr Gly Ala Gly Ala Ile Thr Met Ala Ala Ala Gln Ala Val Gln
      210      215      220
Ala Thr Ala Gln Met Lys Glu Gly Arg Arg Thr Ser Ser Leu Lys Ala
      225      230      235      240
Ser Tyr Glu Ala Phe Lys Asn Asn Asp Phe Gln Leu Gly Lys Glu Phe
      245      250      255
Ser Met Ala Arg Glu Thr Val Gly Tyr Ser Ser Ser Ser Ala Leu Met
      260      265      270
Thr Thr Leu Thr Gln Asn Ala Ser Ser Ser Ala Ala Asp Ser Arg Ser
      275      280      285
Gly Arg Lys Ser Lys Asn Asn Asn Lys Ser Ser Ser Gln Ser Ser
      290      295      300
Ser Ser Ser Ser Ser Ser Leu Ser Ser Cys Ser Ser Ser Ser Thr
      305      310      315      320
Val Val Gln Glu Ile Ser Gln Gln Thr Thr Val Val Pro Glu Ser Asp
      325      330      335
Ser Asn Ser Gln Val Asp Trp Thr Tyr Asp Pro Asn Glu Pro Arg Tyr
      340      345      350
Cys Ile Cys Asn Gln Val Ser Tyr Gly Glu Met Val Gly Cys Asp Asn
      355      360      365
Gln Asp Cys Pro Ile Glu Trp Phe His Tyr Gly Cys Val Gly Leu Thr
      370      375      380
Glu Ala Pro Lys Gly Lys Trp Tyr Cys Pro Gln Cys Thr Ala Ala Met
      385      390      395      400
Lys Arg Arg Gly Ser Arg His Lys
      405

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&lt;210&gt; 5715

&lt;211&gt; 1458

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5715

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120
ggggcttgcc cgtctagtgt gatgaaggag gcgacccccca aggtgggaag gcgcacgggt
180

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 240  
 aagatcaaag acttgaatga acacattggt tgctgcctat gcgccggcta ctctgtggat  
 300  
 gccaccacca tcacagagtg tcttcatact ttctgcaaga gttgtattgt gaagtacctc  
 360  
 caaactagca agtactgccc catgtgcaac attaagatcc acgagacaca gccactgctc  
 420  
 aacctcaaac tggaccgggt catgcaggac atcgtgtata agctggtgcc tggcttgcaa  
 480  
 gacagtgaag agaaacggat tcgggaattc taccagtccc gaggtttgga ccgggtcacc  
 540  
 cagcccaactg gggaaagacc agcactgagc aacctcgcc tcccttcag cagctttgac  
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 660  
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 780  
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 840  
 cagttctggc aaagacaaga ataaaagcgt cctgcagggt agaagggtg aggggagggc  
 900  
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 cggagggtcc tgtgtcaccg cttgatgcta aacctcagc atgtgcagct cctttttgac  
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 aatgaagttc tccctgatca catgacaatg aagcagatat gcctctcccg ctgggttcggc  
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 aaggtaagcc aggccaccct ccctgggac acacccctt cagactcccc ccaaccatcc  
 1200  
 tacagtcctc aggggaaggg tgggctgagg ggcccttga ataataaag aacattcccc  
 1260  
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 1320  
 gaaagagaag aggaggtagg ggccaagccc ccacccatc cactccctc tccctcccca  
 1380  
 gatatttatg tgaaatgaac tgcagcttta tttttgaaa taaaaacttt taaaaagcaa  
 1440  
 aaaaaaaaaa aaaaaaaaa  
 1458

&lt;210&gt; 5716

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5716

Leu Gln Glu Glu Val Arg Val Lys Ile Lys Asp Leu Asn Glu His Ile

1 5 10 15

Val Cys Cys Leu Cys Ala Gly Tyr Phe Val Asp Ala Thr Thr Ile Thr

```

      20      25      30
Glu Cys Leu His Thr Phe Cys Lys Ser Cys Ile Val Lys Tyr Leu Gln
      35      40      45
Thr Ser Lys Tyr Cys Pro Met Cys Asn Ile Lys Ile His Glu Thr Gln
      50      55      60
Pro Leu Leu Asn Leu Lys Leu Asp Arg Val Met Gln Asp Ile Val Tyr
      65      70      75      80
Lys Leu Val Pro Gly Leu Gln Asp Ser Glu Lys Arg Ile Arg Glu
      85      90      95
Phe Tyr Gln Ser Arg Gly Leu Asp Arg Val Thr Gln Pro Thr Gly Glu
      100      105      110
Glu Pro Ala Leu Ser Asn Leu Gly Leu Pro Phe Ser Ser Phe Asp His
      115      120      125
Ser Lys Ala His Tyr Tyr Arg Tyr Asp Glu Gln Leu Asn Leu Cys Leu
      130      135      140
Glu Arg Leu Arg
145

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&lt;210&gt; 5717

&lt;211&gt; 1419

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5717

```

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120
tttcgggttat tccctccatc tcgtcaacag ctgccgcgcg caggcttagc tcatcctctc
180
gacctgccag gaagcagaga gaccacaga gcaggaggga ggcagaaagt ggagacggac
240
ctgagccccga ggaagaggca ggcagaggct gaggtgatt ccacccagc ctgcctggac
300
aacctcctt agccgcagcc ccttcagtt ccttaggggt tctgcccc cccctctctg
360
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420
ttcttcatgg caactgtggg gctgctgatg ctgggggtga ctctgccaaa cagctactgg
480
cgagtgtcca ctgtgcacgg gaacgtcatc accaccaaca ccatcttcca gaacctctgg
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600
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660
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<210> 5718

<211> 228

<212> PRT

<213> Homo sapiens

<400> 5718

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			20					25					30		
Thr	Val	His	Gly	Asn	Val	Ile	Thr	Thr	Asn	Thr	Ile	Phe	Glu	Asn	Leu
		35				40						45			
Trp	Phe	Ser	Cys	Ala	Thr	Asp	Ser	Leu	Gly	Val	Tyr	Asn	Cys	Trp	Glu
	50					55					60				
Phe	Pro	Ser	Met	Leu	Ala	Leu	Ser	Gly	Tyr	Ile	Gln	Ala	Cys	Arg	Ala
65				70					75					80	
Leu	Met	Ile	Thr	Ala	Ile	Leu	Leu	Gly	Phe	Leu	Gly	Leu	Leu	Leu	Gly
			85					90						95	
Ile	Ala	Gly	Leu	Arg	Cys	Thr	Asn	Ile	Gly	Gly	Leu	Glu	Leu	Ser	Arg
			100					105						110	
Lys	Ala	Lys	Leu	Ala	Ala	Thr	Ala	Gly	Ala	Leu	His	Ile	Leu	Ala	Gly
		115				120						125			
Ile	Cys	Gly	Met	Val	Ala	Ile	Ser	Trp	Tyr	Ala	Phe	Asn	Ile	Thr	Arg
	130					135						140			
Asp	Phe	Phe	Asp	Pro	Leu	Tyr	Pro	Gly	Thr	Lys	Tyr	Glu	Leu	Gly	Pro
145				150					155					160	
Ala	Leu	Tyr	Leu	Gly	Trp	Ser	Ala	Ser	Leu	Ile	Ser	Ile	Leu	Gly	Gly
			165						170					175	
Leu	Cys	Leu	Cys	Ser	Ala	Cys	Cys	Cys	Gly	Ser	Asp	Glu	Asp	Pro	Ala
		180						185					190		
Ala	Ser	Ala	Arg	Arg	Pro	Tyr	Gln	Ala	Pro	Val	Ser	Val	Met	Pro	Val
		195					200					205			
Ala	Thr	Ser	Asp	Gln	Glu	Gly	Asp	Ser	Ser	Phe	Gly	Lys	Tyr	Gly	Arg
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Asn	Ala	Tyr	Val												

225

&lt;210&gt; 5719

&lt;211&gt; 2267

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5719

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180  
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240  
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4884

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<210> 5720

<211> 455

<212> PRT

<213> Homo sapiens

<400> 5720

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			20					25					30		
His	Asp	Val	Pro	Gln	Gly	Leu	His	Pro	Pro	Val	Ala	Pro	Ser	Gly	Gly
	35						40					45			
Val	Asp	Ser	Ala	Val	Ala	Ala	Leu	Leu	Arg	Arg	Arg	Gly	Tyr	Gln	
	50					55					60				
Val	Thr	Gly	Val	Phe	Met	Lys	Asn	Trp	Asp	Ser	Leu	Asp	Glu	His	Gly
65					70					75				80	
Val	Cys	Thr	Ala	Asp	Lys	Asp	Cys	Glu	Asp	Ala	Tyr	Arg	Val	Cys	Gln
			85					90					95		
Ile	Leu	Asp	Ile	Pro	Phe	His	Gln	Val	Ser	Tyr	Val	Lys	Glu	Tyr	Trp
	100							105					110		
Asn	Asp	Val	Phe	Ser	Asp	Phe	Leu	Asn	Glu	Tyr	Glu	Lys	Gly	Arg	Thr
	115						120					125			
Pro	Asn	Pro	Asp	Ile	Val	Cys	Asn	Lys	His	Ile	Lys	Phe	Ser	Cys	Phe

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      130              135              140
Phe His Tyr Ala Val Asp Asn Leu Gly Ala Asp Ala Ile Ala Thr Gly
145              150              155              160
His Tyr Ala Arg Thr Ser Leu Glu Asp Glu Glu Val Phe Glu Gln Lys
      165              170              175
His Val Lys Lys Pro Glu Gly Leu Phe Arg Asn Arg Phe Glu Val Arg
      180              185              190
Asn Ala Val Lys Leu Leu Gln Ala Ala Asp Ser Phe Lys Asp Gln Thr
      195              200              205
Phe Phe Leu Ser Gln Val Ser Gln Asp Ala Leu Arg Arg Thr Ile Phe
      210              215              220
Pro Leu Gly Gly Leu Thr Lys Glu Phe Val Lys Lys Ile Ala Ala Glu
225              230              235              240
Asn Arg Leu His His Val Leu Gln Lys Lys Glu Ser Met Gly Met Cys
      245              250              255
Phe Ile Gly Lys Arg Asn Phe Glu His Phe Leu Leu Gln Tyr Leu Gln
      260              265              270
Pro Arg Pro Gly His Phe Ile Ser Ile Glu Asp Asn Lys Val Leu Gly
      275              280              285
Thr His Lys Gly Trp Phe Leu Tyr Thr Leu Gly Gln Arg Ala Asn Ile
      290              295              300
Gly Gly Leu Arg Glu Pro Trp Tyr Val Val Glu Lys Asp Ser Val Lys
305              310              315              320
Gly Asp Val Phe Val Ala Pro Arg Thr Asp His Pro Ala Leu Tyr Arg
      325              330              335
Asp Leu Leu Arg Thr Ser Arg Val His Trp Ile Ala Glu Glu Pro Pro
      340              345              350
Ala Ala Leu Val Arg Asp Lys Met Met Glu Cys His Phe Arg Phe Arg
      355              360              365
His Gln Met Ala Leu Val Pro Cys Val Leu Thr Leu Asn Gln Asp Gly
      370              375              380
Thr Val Trp Val Thr Ala Val Gln Ala Val Arg Ala Leu Ala Thr Gly
385              390              395              400
Gln Phe Ala Val Phe Tyr Lys Gly Asp Glu Cys Leu Gly Ser Gly Lys
      405              410              415
Ile Leu Arg Leu Gly Pro Ser Ala Tyr Thr Leu Gln Lys Gly Gln Arg
      420              425              430
Arg Ala Gly Met Ala Thr Glu Ser Pro Ser Asp Ser Pro Glu Asp Gly
      435              440              445
Pro Gly Leu Ser Pro Leu Leu
      450              455

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&lt;210&gt; 5721

&lt;211&gt; 400

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5721

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120
ggaatagcct tgccatgtct gttggacgct gacaaatatt tctggtgggc gcttttgtac
180

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 tgagactgca gactttcatc tacaacagtg gttaatgtaa aagagtagtt atgggtgtaa  
 300  
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<210> 5722  
 <211> 80  
 <212> PRT  
 <213> Homo sapiens

<400> 5722  
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 20 25 30  
 Ala Phe Leu Lys Arg Lys Glu Tyr Gly Ile Ala Leu Pro Cys Leu Leu  
 35 40 45  
 Asp Ala Asp Lys Tyr Phe Trp Trp Ala Leu Leu Tyr Leu Val Asn Thr  
 50 55 60  
 Ser Phe Lys Glu Asp Gly Pro Asp Tyr Thr Glu His Leu Pro Cys Pro  
 65 70 75 80

<210> 5723  
 <211> 376  
 <212> DNA  
 <213> Homo sapiens

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 180  
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 240  
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<210> 5724  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 5724  
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Met Gly Val Pro Glu Val Trp Gly Leu Leu Ser Lys Glu Trp Trp His			
35	40	45	
Ala Gly Leu Ser Gly Ala Met Trp His Gly Trp Trp Ala Ser Ile Cys			
50	55	60	
Ser Gly Cys Leu Leu Ser Asp Glu Gly Thr Gly Cys Pro Cys Leu Pro			
65	70	75	80
Gln His Ala Pro Cys Pro Ala Cys Pro Leu Pro Cys Met Ser Pro Val			
85	90	95	
Leu His Ile Pro Cys Pro Ala Gly Pro Ile Leu Ser Cys Met Ser Pro			
100	105	110	
Val Leu His Met Pro Cys Pro Ala Leu Leu Leu His Ala			
115	120	125	

&lt;210&gt; 5725

&lt;211&gt; 1160

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5725

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gcagagctga gcttgggaca ccagcgggaa cagggcacc cttctgcact gacttcagga
960

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 aatgaatcaa ctgctatcct tccccacc cctcagccca ggagggaaag ggcattttct  
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<210> 5726  
 <211> 273  
 <212> PRT  
 <213> Homo sapiens

<400> 5726  
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 Ser Arg Pro Pro Gly Ser Arg Pro Thr Ala His Gly Arg Ala Trp Gly  
 35 40 45  
 Ala Ser Arg Ala Arg Arg Pro Ala Pro Gly Gly Pro Phe Pro Gly Val  
 50 55 60  
 Ser Thr Asp Asp Ser Ala Val Pro Pro Pro Gly Gly Ala Pro His Phe  
 65 70 75 80  
 Gly His Tyr Arg Thr Gly Gly Gly Ala Met Gly Leu Arg Ser Ala Ser  
 85 90 95  
 Val Ser Ser Val Ala Gly Met Gly Met Asp Pro Ser Thr Ala Gly Gly  
 100 105 110  
 Val Pro Phe Gly Leu Tyr Thr Pro Ala Ser Arg Gly Thr Gly Asp Ser  
 115 120 125  
 Glu Arg Ala Pro Gly Gly Gly Gly Ser Ala Ser Asp Ser Thr Tyr Ala  
 130 135 140  
 His Gly Asn Gly Tyr Gln Glu Thr Gly Gly Gly His His Arg Asp Gly  
 145 150 155 160  
 Met Leu Tyr Leu Gly Ser Arg Ala Ser Leu Ala Asp Ala Leu Pro Leu  
 165 170 175  
 His Ile Ala Pro Arg Trp Phe Ser Ser His Ser Gly Phe Lys Cys Pro  
 180 185 190  
 Ile Cys Ser Lys Ser Val Ala Ser Asp Glu Met Glu Met His Phe Ile  
 195 200 205  
 Met Cys Leu Ser Lys Pro Arg Leu Ser Tyr Asn Asp Asp Val Leu Thr  
 210 215 220  
 Lys Asp Ala Gly Glu Cys Val Ile Cys Leu Glu Glu Leu Leu Gln Gly  
 225 230 235 240  
 Asp Thr Ile Ala Arg Leu Pro Cys Leu Cys Ile Tyr His Lys Ser Cys  
 245 250 255  
 Ile Asp Ser Trp Phe Glu Val Asn Arg Ser Cys Pro Glu His Pro Ala  
 260 265 270  
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<210> 5727  
 <211> 1237

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5727

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120  
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180  
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240  
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1200  
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa  
1237

&lt;210&gt; 5728

&lt;211&gt; 368

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5728

Xaa Arg Arg Glu Val Thr Thr Arg Thr Gly Ser Val Ser Thr Thr Gln

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Lys Tyr Arg Asp Ile Asp Glu Asp Glu Ile Leu Arg Thr Leu Ser Pro
      35           40           45
Glu Glu Leu Glu Gln Leu Asp Cys Glu Leu Gln Glu Met Asp Pro Glu
      50           55           60
Asn Met Leu Leu Pro Ala Gly Leu Arg Gln Arg Asp Gln Thr Lys Lys
      65           70           75           80
Ser Pro Thr Gly Pro Leu Asp Arg Glu Ala Leu Leu Gln Tyr Leu Glu
      85           90           95
Gln Gln Ala Leu Glu Val Lys Glu Arg Asp Asp Leu Val Pro Phe Thr
      100           105           110
Gly Glu Lys Lys Gly Lys Pro Tyr Ile Gln Pro Lys Arg Glu Ile Pro
      115           120           125
Ala Glu Glu Gln Ile Thr Leu Glu Pro Glu Leu Glu Glu Ala Leu Ala
      130           135           140
His Ala Thr Asp Ala Glu Met Cys Asp Ile Ala Ala Ile Leu Asp Met
      145           150           155           160
Tyr Thr Leu Met Ser Asn Lys Gln Tyr Tyr Asp Ala Leu Cys Ser Gly
      165           170           175
Glu Ile Cys Asn Thr Glu Gly Ile Ser Ser Val Val Gln Pro Asp Lys
      180           185           190
Tyr Lys Pro Val Pro Asp Glu Pro Pro Asn Pro Thr Asn Ile Glu Glu
      195           200           205
Ile Leu Lys Arg Val Arg Ser Asn Asp Lys Glu Leu Glu Glu Val Asn
      210           215           220
Leu Asn Asn Ile Gln Asp Ile Pro Ile Pro Met Leu Ser Glu Leu Cys
      225           230           235           240
Glu Ala Met Lys Ala Asn Thr Tyr Val Arg Ser Phe Ser Leu Val Ala
      245           250           255
Thr Arg Ser Gly Asp Pro Ile Ala Asn Ala Val Ala Asp Met Leu Arg
      260           265           270
Glu Asn Arg Ser Leu Gln Ser Leu Asn Ile Glu Ser Asn Phe Ile Ser
      275           280           285
Ser Thr Gly Leu Met Ala Val Leu Lys Ala Val Arg Glu Asn Ala Thr
      290           295           300
Leu Thr Glu Leu Arg Val Asp Asn Gln Arg Gln Trp Pro Gly Asp Ala
      305           310           315           320
Val Glu Met Glu Met Ala Thr Val Leu Glu Gln Cys Pro Ser Ile Val
      325           330           335
Arg Phe Gly Tyr His Phe Thr Gln Gln Gly Pro Arg Ala Arg Ala Ala
      340           345           350
Gln Ala Met Thr Arg Asn Asn Glu Leu Arg Arg Gln Gln Lys Lys Arg
      355           360           365

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&lt;210&gt; 5729

&lt;211&gt; 381

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5729

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 180  
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<210> 5730

<211> 64

<212> PRT

<213> Homo sapiens

<400> 5730

Phe	Val	Ala	Lys	Lys	Arg	Val	Leu	Ser	Thr	Leu	Pro	Ser	Gln	Gly	Gln
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Ala	Gly	Gly	His	Ser	Pro	Ala	Cys	Val	Ser	Gly	Val	Pro	Pro	Gly	Pro
			20				25					30			
Ser	Ser	Ala	Gly	Thr	Ala	Ser	Ser	Ser	Pro	Ala	Ser	Gly	Thr	Cys	Gly
		35				40					45				
Gly	Ser	Ser	Ser	Ala	Gly	Gly	Ser	Ser	Ala	Arg	Phe	Cys	Thr	Lys	Phe
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<210> 5731

<211> 891

<212> DNA

<213> Homo sapiens

<400> 5731

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 891

<210> 5732

<211> 193

<212> PRT

<213> Homo sapiens

<400> 5732

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 20 25 30  
 Leu Thr Lys Ala Ala Thr Ser Gly Ile Leu Ser Ala Leu Gly Asn Phe  
 35 40 45  
 Leu Ala Gln Met Ile Glu Lys Lys Arg Lys Lys Glu Asn Ser Arg Ser  
 50 55 60  
 Leu Asp Val Gly Gly Pro Leu Arg Tyr Ala Val Tyr Gly Phe Phe Phe  
 65 70 75 80  
 Thr Gly Pro Leu Ser His Phe Phe Tyr Phe Met Glu His Trp Ile  
 85 90 95  
 Pro Pro Glu Val Pro Leu Ala Gly Leu Arg Arg Leu Leu Leu Asp Arg  
 100 105 110  
 Leu Val Phe Ala Pro Ala Phe Leu Met Leu Phe Phe Leu Ile Met Asn  
 115 120 125  
 Phe Leu Glu Gly Lys Asp Ala Ser Ala Phe Ala Ala Lys Met Arg Gly  
 130 135 140  
 Gly Phe Trp Pro Ala Leu Arg Met Asn Trp Arg Val Trp Thr Pro Leu  
 145 150 155 160  
 Gln Phe Ile Asn Ile Asn Tyr Val Pro Leu Lys Phe Arg Val Leu Phe  
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<210> 5733

<211> 950

<212> DNA

<213> Homo sapiens

<400> 5733

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 240  
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 420  
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 950

&lt;210&gt; 5734

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5734

Xaa	His	Val	Val	Ile	Leu	Pro	Gly	Asp	Gly	Gly	Ser	Gly	Thr	Ala	Ala
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Ile	Ser	Phe	Thr	Gly	Ala	Leu	Lys	Ile	Pro	Gly	Val	Ile	Glu	Phe	Ser
		20					25					30			
Leu	Cys	Leu	Leu	Phe	Ala	Lys	Leu	Val	Ser	Tyr	Thr	Phe	Leu	Phe	Trp
		35				40					45				
Leu	Pro	Leu	Tyr	Ile	Thr	Asn	Val	Asp	His	Leu	Asp	Ala	Lys	Lys	Ala
	50				55				60						
Gly	Cys	Thr	Gly	Ser	Pro	Asp	Pro	Leu	Arg	His	Ser	Ser	His	Arg	Thr
65					70				75					80	
Ser	Lys														

&lt;210&gt; 5735

&lt;211&gt; 4241

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5735

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180  
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240  
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300  
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360  
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1620



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 4241

&lt;210&gt; 5736

&lt;211&gt; 327

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5736

Met Pro Gly Pro Thr Gln Thr Leu Ser Pro Asn Gly Glu Asn Asn Asn  
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 Asp Ile Ile Gln Asp Asn Asn Gly Thr Ile Ile Pro Phe Arg Lys His  
 20 25 30  
 Thr Val Arg Gly Glu Arg Ser Tyr Ser Trp Gly Met Ala Val Asn Val  
 35 40 45  
 Tyr Ser Thr Ser Ile Thr Gln Glu Thr Met Ser Arg His Asp Ile Ile  
 50 55 60  
 Ala Trp Val Asn Asp Ile Val Ser Leu Asn Tyr Thr Lys Val Glu Gln  
 65 70 75 80  
 Leu Cys Ser Gly Ala Ala Tyr Cys Gln Phe Met Asp Met Leu Phe Pro  
 85 90 95  
 Gly Cys Ile Ser Leu Lys Lys Val Lys Phe Gln Ala Lys Leu Glu His

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      100      105      110
Glu Tyr Ile His Asn Phe Lys Leu Leu Gln Ala Ser Phe Lys Arg Met
      115      120      125
Asn Val Asp Lys Val Ile Pro Val Glu Lys Leu Val Lys Gly Arg Phe
      130      135      140
Gln Asp Asn Leu Asp Phe Ile Gln Trp Phe Lys Lys Phe Tyr Asp Ala
      145      150      155      160
Asn Tyr Asp Gly Lys Glu Tyr Asp Pro Val Glu Ala Arg Gln Gly Gln
      165      170      175
Asp Ala Ile Pro Pro Pro Asp Pro Gly Glu Gln Ile Phe Asn Leu Pro
      180      185      190
Lys Lys Ser His His Ala Asn Ser Pro Thr Ala Gly Ala Ala Lys Ser
      195      200      205
Ser Pro Ala Ala Lys Pro Gly Ser Thr Pro Ser Arg Pro Ser Ser Ala
      210      215      220
Lys Arg Ala Ser Ser Ser Gly Ser Ala Ser Lys Ser Asp Lys Asp Leu
      225      230      235      240
Glu Thr Gln Val Ile Gln Leu Asn Glu Gln Val His Ser Leu Lys Leu
      245      250      255
Ala Leu Glu Gly Val Glu Lys Glu Arg Asp Phe Tyr Phe Gly Lys Leu
      260      265      270
Arg Glu Ile Glu Leu Leu Cys Gln Glu His Gly Gln Glu Asn Asp Asp
      275      280      285
Leu Val Gln Arg Leu Met Asp Ile Leu Tyr Ala Ser Glu Glu His Glu
      290      295      300
Gly His Thr Glu Glu Pro Glu Ala Glu Glu Gln Ala His Glu Gln Gln
      305      310      315      320
Pro Pro Gln Gln Glu Tyr
      325

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&lt;210&gt; 5737

&lt;211&gt; 340

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5737

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240
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300
caccgcagaa atgacaccgc acgccagcgc cccgcggcgc
340

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&lt;210&gt; 5738

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5738

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Met Leu Pro Pro Trp Pro Ile Ser Ser His Gln Val Arg Met Ala Leu
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Gln His Leu Pro Leu Arg Leu Gln Leu Pro Ser Gln Val His Gln Glu
 20           25           30
Thr Thr Gly His His Trp Gln Trp Arg Gly Asp Met Glu His Gly Leu
 35           40           45
Gly Ser Arg Leu Leu Ala Pro Asp Val Gln Pro Gln Thr Pro Pro Val
 50           55           60
Met Gly Glu Val Trp Arg Pro Val Gln Leu Ser Gln Gly His Ala His
 65           70           75           80
Leu Ser Leu Gly Ser Val Gly Lys Ala Tyr Pro Lys Ser His Ile Gln
 85           90           95
Gly Gly Xaa

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&lt;210&gt; 5739

&lt;211&gt; 780

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5739

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ggcacatata tggctttact attttccaga gggccaactg cttttactga ataatccatt
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780

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&lt;210&gt; 5740

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5740

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Met Ile Arg Lys Gln Ser Gln His His Gly Pro Ser Leu Ser Met Ser
 1           5           10           15
Ser Lys Pro Cys Gln Ala Leu Gln Leu Ser Thr Leu Pro Ser Gly
      20           25           30
Leu Pro Val Cys Gly Gly Gln Lys Arg Lys Thr Thr Gln Gly Glu Cys
      35           40           45
Leu Leu Pro Pro Ala Gly Lys Gln Leu Gly His His Leu Ser Glu Ser
      50           55           60
Arg Cys Cys Ser Ser Trp Gln Gln Ser His Ser Glu Arg Ser Cys Val
65           70           75           80
His Cys Leu Ser Gly Arg Pro Cys Gln Ser Pro Ser Leu Pro Pro Pro
      85           90           95
Tyr Leu Cys Arg Lys Pro Gly His His Phe Lys Ala Leu Pro Ser
      100          105          110
Phe Leu Gly Arg Ala Gln Pro Gln
      115          120

```

&lt;210&gt; 5741

&lt;211&gt; 2444

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5741

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900

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2444

&lt;210&gt; 5742

&lt;211&gt; 427

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5742

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 Gly Ala Gly Tyr Asn Ser Glu Asp Glu Tyr Glu Ala Ala Ala Arg  
 35 40 45  
 Ile Glu Ala Met Asp Pro Ala Thr Val Glu Gln Gln Glu His Trp Phe  
 50 55 60  
 Glu Lys Ala Leu Arg Asp Lys Lys Gly Phe Ile Lys Gln Met Lys  
 65 70 75 80  
 Glu Asp Gly Ala Cys Leu Phe Arg Ala Val Ala Asp Gln Val Tyr Gly  
 85 90 95  
 Asp Gln Asp Met His Glu Val Val Arg Lys His Cys Met Asp Tyr Leu  
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 Met Lys Asn Ala Asp Tyr Phe Ser Asn Tyr Val Thr Glu Asp Phe Thr  
 115 120 125  
 Thr Tyr Ile Asn Arg Lys Arg Lys Asn Asn Cys His Gly Asn His Ile  
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 Gln Tyr Ser Thr Glu Pro Ile Asn Thr Phe His Gly Ile His Gln Asn  
 165 170 175  
 Glu Asp Glu Pro Ile Arg Val Ser Tyr His Arg Asn Ile His Tyr Asn  
 180 185 190  
 Ser Val Val Asn Pro Asn Lys Ala Thr Ile Gly Val Gly Leu Gly Leu  
 195 200 205  
 Pro Ser Phe Lys Pro Gly Phe Ala Glu Gln Ser Leu Met Lys Asn Ala  
 210 215 220  
 Ile Lys Thr Ser Glu Glu Ser Trp Ile Glu Gln Gln Met Leu Glu Asp  
 225 230 235 240  
 Lys Lys Arg Ala Thr Asp Trp Glu Ala Thr Asn Glu Ala Ile Glu Glu  
 245 250 255  
 Gln Val Ala Arg Glu Ser Tyr Leu Gln Trp Leu Arg Asp Gln Glu Lys  
 260 265 270  
 Gln Ala Arg Gln Val Arg Gly Pro Ser Gln Pro Arg Lys Ala Ser Ala  
 275 280 285  
 Thr Cys Ser Ser Ala Thr Ala Ala Ala Ser Ser Gly Leu Glu Glu Trp  
 290 295 300  
 Thr Ser Arg Ser Pro Arg Gln Arg Ser Ser Ala Ser Ser Pro Glu His  
 305 310 315 320  
 Pro Glu Leu His Ala Glu Leu Gly Met Lys Pro Pro Ser Pro Gly Thr  
 325 330 335  
 Val Leu Ala Leu Ala Lys Pro Pro Ser Pro Cys Ala Pro Gly Thr Ser  
 340 345 350  
 Ser Gln Phe Ser Ala Gly Ala Asp Arg Ala Thr Ser Pro Leu Val Ser  
 355 360 365  
 Leu Tyr Pro Ala Leu Glu Cys Arg Ala Leu Ile Gln Gln Met Ser Pro  
 370 375 380  
 Ser Ala Phe Gly Leu Asn Asp Trp Asp Asp Asp Glu Ile Leu Ala Ser

385                      390                      395                      400  
 Val Leu Ala Val Ser Gln Gln Glu Tyr Leu Asp Ser Met Lys Lys Asn  
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 Lys Val His Arg Asp Pro Pro Pro Asp Lys Ser  
                          420                      425

<210> 5743  
 <211> 550  
 <212> DNA  
 <213> Homo sapiens

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 240  
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 360  
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 420  
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 550

<210> 5744  
 <211> 95  
 <212> PRT  
 <213> Homo sapiens

<400> 5744  
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 Cys Lys Gly Ala Arg Arg Pro Gly Cys Pro Thr Pro Glu Thr Gly Gln  
                          35                      40                      45  
 Gly Gly Arg Pro Pro Lys Gly Pro Arg Thr Gly Arg Pro Ala Pro Ser  
 50                      55                      60  
 Pro Gly Ser Pro Pro Arg Glu Ser Arg Cys Leu Ala Pro Xaa Asp Pro  
 65                      70                      75                      80  
 Leu Gly Trp Thr Pro Gly Pro Pro Ala Ala Ala Pro Gly Ala Leu  
                          85                      90                      95

<210> 5745  
 <211> 849



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5745

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120
aggaagtgat gcagggcagg taaacagctg gtgctcagca gcgagaggac gcgtcactct
180
gccgtttctg aggggtgacgc cctccccgta cctcgctgag agccacctgc agacacagca
240
ggccacagca gaatgcacag gtcactgttg taggggaaca aatcgtaatg cccagagaaa
300
acctgatagt gaaatgtaaa cagacaggac aggggtggtc cagggtggcca ccaccgccag
360
gcccttcccc tgattgatct gagagcttca cagccggcgg cactgggacc catttccaga
420
aacactggaa caccaggctc ctcagatgcc cgccgggagg gccccaggga ggcctttctc
480
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540
ccccagctg acagtgagac caggacccta ggaaggtcag gtggtggtga agtcatcccc
600
tctccaaccg agcagagcct ggggttgggc tctgatgacc tcccgggcaa agtgtccagg
660
tggaggaagc aaactcccaa atggggcaca aaggtataa aaagcagctg agagattgag
720
ggatggggtc ggggccactt ggccgacacc ttctgcctcg cctggccggg ccggggccagc
780
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840
gtcccatgg
849

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&lt;210&gt; 5746

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5746

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Met Thr Ser Pro Pro Asp Leu Pro Arg Val Leu Val Ser Leu Ser
1      5      10      15
Ala Gly Gly Pro Leu Cys Val Phe Val Gln Phe Cys Cys Met Gly Phe
20     25     30
Val Thr Gln Lys Leu Met Leu Arg Lys Ala Ser Leu Gly Pro Leu Pro
35     40     45
Arg Ala Ser Glu Arg Pro Gly Val Pro Val Phe Leu Glu Met Gly Pro
50     55     60
Ser Ala Ala Gly Cys Glu Ala Leu Arg Ser Ile Thr Gly Arg Ala Trp
65     70     75     80
Arg Trp Trp Pro Pro Gly Thr Thr Leu Ser Cys Leu Phe Thr Phe His
85     90     95
Tyr Gln Val Phe Ser Gly His Tyr Asp Leu Phe Pro Tyr Asn Ser Asp

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	100		105		110
Leu	Cys	Ile	Leu	Leu	Trp
			Pro	Ala	Val
			Ser	Ala	Gly
			Gly	Gly	Ser
			Gln	Arg	
	115		120		125
Gly	Thr	Gly	Arg	Ala	Ser
			Pro	Cys	Arg
			Thr	Ala	Glu
	130		135		140

&lt;210&gt; 5747

&lt;211&gt; 1999

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5747

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420
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480
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540
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1080
aagctcagcc cgtctggcca ccagaatctc tttctgagtc caaatgcctc cccgtgcaca
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1200
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1260

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 1999

&lt;210&gt; 5748

&lt;211&gt; 492

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5748

Xaa	Met	Ala	Gln	Ser	Gly	Gly	Glu	Ala	Arg	Pro	Gly	Pro	Lys	Thr	Ala
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Val	Gln	Ile	Arg	Val	Ala	Ile	Gln	Glu	Ala	Glu	Asp	Val	Asp	Glu	Leu
			20					25					30		
Glu	Asp	Glu	Glu	Gly	Ala	Glu	Thr	Arg	Gly	Ala	Gly	Asp	Pro	Ala	
			35				40					45			
Arg	Tyr	Leu	Ser	Pro	Gly	Trp	Gly	Ser	Ala	Ser	Glu	Glu	Glu	Pro	Ser
			50				55				60				
Arg	Gly	His	Ser	Gly	Thr	Thr	Ala	Ser	Gly	Gly	Glu	Asn	Glu	Arg	Glu
65					70					75				80	
Asp	Leu	Glu	Gln	Glu	Trp	Lys	Pro	Pro	Asp	Glu	Glu	Leu	Ile	Lys	Lys
					85					90				95	
Leu	Val	Asp	Gln	Ile	Glu	Phe	Tyr	Phe	Ser	Asp	Glu	Asn	Leu	Glu	Lys
			100					105					110		
Asp	Ala	Phe	Leu	Leu	Lys	His	Val	Arg	Arg	Asn	Lys	Leu	Gly	Tyr	Val
			115				120					125			
Ser	Val	Lys	Leu	Leu	Thr	Ser	Phe	Lys	Lys	Val	Lys	His	Leu	Thr	Arg
			130				135					140			
Asp	Trp	Arg	Thr	Thr	Ala	His	Ala	Leu	Lys	Tyr	Ser	Val	Val	Leu	Glu
145					150					155				160	
Leu	Asn	Glu	Asp	His	Arg	Lys	Val	Arg	Arg	Thr	Thr	Pro	Val	Pro	Leu

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      165      170      175
Phe Pro Asn Glu Asn Leu Pro Ser Lys Met Leu Leu Val Tyr Asp Leu
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Tyr Leu Ser Pro Lys Leu Trp Ala Leu Ala Thr Pro Gln Lys Asn Gly
      195      200      205
Arg Val Gln Glu Lys Val Met Glu His Leu Leu Lys Leu Phe Gly Thr
      210      215      220
Phe Gly Val Ile Ser Ser Val Arg Ile Leu Lys Pro Gly Arg Glu Leu
      225      230      235
Pro Pro Asp Ile Arg Arg Ile Ser Ser Arg Tyr Ser Gln Val Gly Thr
      245      250      255
Gln Glu Cys Ala Ile Val Glu Phe Glu Glu Val Glu Ala Ala Ile Lys
      260      265      270
Ala His Glu Phe Met Ile Thr Glu Ser Gln Gly Lys Glu Asn Met Lys
      275      280      285
Ala Val Leu Ile Gly Met Lys Pro Pro Lys Lys Lys Pro Ala Lys Asp
      290      295      300
Lys Asn His Asp Glu Glu Pro Thr Ala Ser Ile His Leu Asn Lys Ser
      305      310      315
Leu Asn Lys Arg Val Glu Glu Leu Gln Tyr Met Gly Asp Glu Ser Ser
      325      330      335
Ala Asn Ser Ser Ser Asp Pro Glu Ser Asn Pro Thr Ser Pro Met Ala
      340      345      350
Gly Arg Arg His Ala Ala Thr Asn Lys Leu Ser Pro Ser Gly His Gln
      355      360      365
Asn Leu Phe Leu Ser Pro Asn Ala Ser Pro Cys Thr Ser Pro Trp Ser
      370      375      380
Ser Pro Leu Ala Gln Arg Lys Gly Val Ser Arg Lys Ser Pro Leu Ala
      385      390      395
Glu Glu Gly Arg Leu Asn Cys Ser Thr Ser Pro Glu Ile Phe Arg Lys
      405      410      415
Cys Met Asp Tyr Ser Ser Asp Ser Ser Val Thr Pro Ser Gly Ser Pro
      420      425      430
Trp Val Arg Arg Arg Arg Gln Ala Glu Met Gly Thr Gln Glu Lys Ser
      435      440      445
Pro Gly Thr Ser Pro Leu Leu Ser Arg Lys Met Gln Thr Ala Asp Gly
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Leu Pro Val Gly Val Leu Arg Leu Pro Arg Gly Pro Asp Asn Thr Arg
      465      470      475
Gly Phe His Gly His Glu Arg Ser Arg Ala Cys Val
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<210> 5749  
 <211> 2849  
 <212> DNA  
 <213> Homo sapiens

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 2849

<210> 5750  
 <211> 522  
 <212> PRT  
 <213> Homo sapiens

<400> 5750  
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 Val Gly Pro Gly Ala Ser Gly Val Cys Pro Thr Ala Cys Ile Cys Ala  
 35 40 45  
 Thr Asp Ile Val Ser Cys Thr Asn Lys Asn Leu Ser Lys Val Pro Gly  
 50 55 60  
 Asn Leu Phe Arg Leu Ile Lys Arg Leu Asp Leu Ser Tyr Asn Arg Ile  
 65 70 75 80  
 Gly Leu Leu Asp Ser Glu Trp Ile Pro Val Ser Phe Ala Lys Leu Asn

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Thr	Leu	Ile	Leu	Arg	His	Asn	Asn	Ile	Thr	Ser	Ile	Ser	Thr	Gly	Ser		
			100					105					110				
Phe	Ser	Thr	Thr	Pro	Asn	Leu	Lys	Cys	Leu	Asp	Leu	Ser	Ser	Asn	Lys		
			115					120					125				
Leu	Lys	Thr	Val	Lys	Asn	Ala	Val	Phe	Gln	Glu	Leu	Lys	Val	Leu	Glu		
			130				135					140					
Val	Leu	Leu	Leu	Tyr	Asn	Asn	His	Ile	Ser	Tyr	Leu	Asp	Pro	Ser	Ala		
145					150					155					160		
Phe	Gly	Gly	Leu	Ser	Gln	Leu	Gln	Lys	Leu	Tyr	Leu	Ser	Gly	Asn	Phe		
				165					170					175			
Leu	Thr	Gln	Phe	Pro	Met	Asp	Leu	Tyr	Val	Gly	Arg	Phe	Lys	Leu	Ala		
			180					185					190				
Glu	Leu	Met	Phe	Leu	Asp	Val	Ser	Tyr	Asn	Arg	Ile	Pro	Ser	Met	Pro		
			195				200					205					
Met	His	His	Ile	Asn	Leu	Val	Pro	Gly	Lys	Gln	Leu	Arg	Gly	Ile	Tyr		
			210				215					220					
Leu	His	Gly	Asn	Pro	Phe	Val	Cys	Asp	Cys	Ser	Leu	Tyr	Ser	Leu	Leu		
225					230					235					240		
Val	Phe	Trp	Tyr	Arg	Arg	His	Phe	Ser	Ser	Val	Met	Asp	Phe	Lys	Asn		
				245						250				255			
Asp	Tyr	Thr	Cys	Arg	Leu	Trp	Ser	Asp	Ser	Arg	His	Ser	Arg	Gln	Val		
			260					265					270				
Leu	Leu	Leu	Gln	Asp	Ser	Phe	Met	Asn	Cys	Ser	Asp	Ser	Ile	Ile	Asn		
			275				280					285					
Gly	Ser	Phe	Arg	Ala	Leu	Gly	Phe	Ile	His	Glu	Ala	Gln	Val	Gly	Glu		
			290			295					300						
Arg	Leu	Met	Val	His	Cys	Asp	Ser	Lys	Thr	Gly	Asn	Ala	Asn	Thr	Asp		
305					310					315					320		
Phe	Ile	Trp	Val	Gly	Pro	Asp	Asn	Arg	Leu	Glu	Pro	Asp	Lys	Glu			
				325					330				335				
Met	Glu	Asn	Phe	Tyr	Val	Phe	His	Asn	Gly	Ser	Leu	Val	Ile	Glu	Ser		
			340					345					350				
Pro	Arg	Phe	Glu	Asp	Ala	Gly	Val	Tyr	Ser	Cys	Ile	Ala	Met	Asn	Lys		
			355				360					365					
Gln	Arg	Leu	Leu	Asn	Glu	Thr	Val	Asp	Val	Thr	Ile	Asn	Val	Ser	Asn		
			370			375					380						
Phe	Thr	Val	Ser	Arg	Ser	His	Ala	His	Glu	Ala	Phe	Asn	Thr	Ala	Phe		
385					390				395						400		
Thr	Thr	Leu	Ala	Ala	Cys	Val	Ala	Ser	Ile	Val	Leu	Val	Leu	Leu	Tyr		
				405					410				415</				

515

520

&lt;210&gt; 5751

&lt;211&gt; 926

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5751

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 120  
 gtgagggcta gctgagggct ctctgccct tcgtgcattc gctggtcact aatcgggcac  
 180  
 cttgtgggtg ctgtgtccg catgggggac ccagtgggtga cagagacgcc caccctcctg  
 240  
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 300  
 gagatccgct ctgtacacgt gggcgtcgtg gtcattcaag cagtgtcctc aggtttctac  
 360  
 gtggccatga accgcccggg ccgcctctac ggtcgcgac tctacaccgt ggactgcagg  
 420  
 ttccgggagc gcatcgaaga gaacggccac aacacctacg cctcacagcg ctggcgccgc  
 480  
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 540  
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 600  
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 720  
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 780  
 cctgagttgg ggacctcgag gacccaacag ggcgcctctc gggctgaagg acgcagacgt  
 840  
 cgaaaggctc agggggacgt cccaggcagg gcccggcaga ggcaggggct cggggggggg  
 900  
 agcacgttgg gagtgggggc aggagc  
 926

&lt;210&gt; 5752

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5752

Met Gly Asp Pro Val Val Thr Glu Thr Pro Thr Leu Leu Gly Leu Pro  
 1 5 10 15  
 Glu Gln Arg Arg Ala Ala Val Arg His Val Asn Lys Gly Ala Gly Ile  
 20 25 30  
 Leu Glu Ile Arg Ser Val His Val Gly Val Val Val Ile Lys Ala Val  
 35 40 45  
 Ser Ser Gly Phe Tyr Val Ala Met Asn Arg Arg Gly Arg Leu Tyr Gly



```

      50              55              60
Ser Arg Leu Tyr Thr Val Asp Cys Arg Phe Arg Glu Arg Ile Glu Glu
65              70              75              80
Asn Gly His Asn Thr Tyr Ala Ser Gln Arg Trp Arg Arg Arg Gly Gln
      85              90              95
Pro Met Phe Leu Ala Leu Asp Arg Arg Gly Gly Pro Arg Pro Gly Gly
      100              105              110
Arg Thr Arg Arg Tyr His Leu Ser Ala His Phe Leu Pro Val Leu Val
      115              120              125
Ser

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&lt;210&gt; 5753

&lt;211&gt; 5668

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5753

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nnaccggtac ttgtcttgg ataacagtgt catcctggca atgctggaac aacctcttgg
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aatgagcag aatgattttt tccctctgt cactgtgctg gtccggggaa tgtctggaag
120
acttgcttgg gcacaacagc ttgtctttt acccagagga gcaaaagcaa atcagaagct
180
ttttgtacct gaacctcgcc cagttcctaa atgacgttg gatttaaata ttctgtgaaa
240
catcgcccat ttctgaaga ggtggacaag attccttttg tgaaagcaga tctcagcatt
300
ccagatttgc atgaaatagt cactgaagaa ttagaagaga gacacgaaaa attaaggagt
360
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420
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480
ttccaaacag cccgcctttt tctctcacac ttggatttt tgctcttaga agcactgaag
540
gaacctgcaa atagtcgtct acctctcac cttattgcac ttgattccac gataacctgga
600
ttttttgatg acattgggta tctggatctc ttgccatgct gtccttttga cacagttttt
660
attttctata tgaagccagg tcagaaaacg aaccaagaga ttttaaagaa tgtggagtct
720
tccagaactg ttcagccaca ttctctagaa tttttgcttt cccttggtg gtcagtagat
780
gtgggcagac accctggttg gactgggcat gtttctacca gttgttctat taattgttgt
840
gatgatggtg aaggatctca acaagaagaa gtgatttcct ctgaagatat tggagctagc
900
attttcaatg gacagaagaa ggtgctgtat tatgctgatg cccttacaga aattgctttt
960
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1020
gatagtgatt caaatatgga tcttatgcca ggaattctga aacagccatc cctgacactt
1080

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1200  
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1440  
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2280  
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2520  
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2580  
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2640  
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2700

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2760  
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4320

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4740  
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5100  
aatttgggat tccacagtgc cttgcatata gtaggcgccc agtaaatact tgttgaagca  
5160  
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5280  
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5580  
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5640  
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5668

&lt;210&gt; 5754

&lt;211&gt; 221

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5754

Asp Ser Leu Glu Ser Asn Ile Ser Asp Gln Asp Ser Asp Ser Asn Met

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      1           5           10           15
Asp Leu Met Pro Gly Ile Leu Lys Gln Pro Ser Leu Thr Leu Glu Leu
      20           25           30
Phe Pro Asn His Thr Asp Asn Leu Asn Ser Ser Gln Arg Leu Ser Pro
      35           40           45
Ser Ser Arg Met Arg Lys Leu Pro Gln Gly Arg Pro Val Pro Pro Leu
      50           55           60
Gly Pro Glu Thr Arg Val Ser Val Val Trp Val Glu Arg Tyr Asp Asp
      65           70           75           80
Ile Glu Asn Phe Pro Leu Ser Glu Leu Met Thr Glu Ile Ser Thr Gly
      85           90           95
Val Glu Thr Thr Ala Asn Ser Ser Thr Ser Leu Arg Ser Thr Thr Leu
      100          105          110
Glu Lys Glu Val Pro Val Ile Phe Ile His Pro Leu Asn Thr Gly Leu
      115          120          125
Phe Arg Ile Lys Ile Gln Gly Ala Thr Gly Lys Phe Asn Met Val Ile
      130          135          140
Pro Leu Val Asp Gly Met Ile Val Ser Arg Arg Ala Leu Gly Phe Leu
      145          150          155          160
Val Arg Gln Thr Val Ile Asn Ile Cys Arg Arg Lys Arg Leu Glu Ser
      165          170          175
Asp Ser Tyr Ser Pro Pro His Val Arg Arg Lys Gln Lys Ile Thr Asp
      180          185          190
Ile Val Asn Lys Tyr Arg Asn Lys Gln Leu Glu Pro Glu Phe Tyr Thr
      195          200          205
Ser Leu Phe Gln Glu Val Gly Leu Lys Asn Cys Ser Ser
      210          215          220

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&lt;210&gt; 5755

&lt;211&gt; 1513

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5755

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120
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180
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240
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360
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600

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 660  
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 720  
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 780  
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 1320  
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 1380  
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 1440  
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 1500  
 aaaaagtcga cgc  
 1513

&lt;210&gt; 5756

&lt;211&gt; 415

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5756

Xaa Arg Val Lys Gly Asn Leu Tyr Cys Glu Val Cys Pro Glu Asp Arg  
 1 5 10 15  
 Pro Leu Ile Val Gln Phe Cys Ala Asn Asp Pro Glu Val Phe Val Gln  
 20 25 30  
 Ala Ala Leu Leu Ala Gln Asp Tyr Cys Asp Ala Ile Asp Leu Asn Leu  
 35 40 45  
 Gly Cys Pro Gln Met Ile Ala Lys Arg Gly His Tyr Gly Ala Phe Leu  
 50 55 60  
 Gln Asp Glu Trp Asp Leu Leu Gln Arg Met Ile Leu Leu Ala His Glu  
 65 70 75 80  
 Lys Leu Ser Val Pro Val Thr Cys Lys Ile Arg Val Phe Pro Glu Ile  
 85 90 95  
 Asp Lys Thr Val Arg Tyr Ala Gln Met Leu Glu Lys Ala Gly Cys Gln  
 100 105 110  
 Leu Leu Thr Val His Gly Arg Thr Lys Glu Gln Lys Gly Pro Leu Ser

```

      115      120      125
Gly Ala Ala Ser Trp Glu His Ile Lys Ala Val Arg Lys Ala Val Ala
  130      135      140
Ile Pro Val Phe Ala Asn Gly Asn Ile Gln Cys Leu Gln Asp Val Glu
  145      150      155      160
Arg Cys Leu Arg Asp Thr Gly Val Gln Gly Val Met Ser Ala Glu Gly
      165      170      175
Asn Leu His Asn Pro Ala Leu Phe Glu Gly Arg Ser Pro Ala Val Trp
      180      185      190
Glu Leu Ala Glu Glu Tyr Leu Asp Ile Val Arg Glu His Pro Cys Pro
      195      200      205
Leu Ser Tyr Val Arg Ala His Leu Phe Lys Leu Trp His His Thr Leu
      210      215      220
Gln Val His Gln Glu Leu Arg Glu Glu Leu Ala Lys Val Lys Thr Leu
      225      230      235      240
Glu Gly Ile Ala Ala Val Ser Gln Glu Leu Lys Leu Arg Cys Gln Glu
      245      250      255
Glu Ile Ser Arg Gln Glu Gly Ala Lys Pro Thr Gly Asp Leu Pro Phe
      260      265      270
His Trp Ile Cys Gln Pro Tyr Ile Arg Pro Gly Pro Arg Glu Gly Ser
      275      280      285
Lys Glu Lys Ala Gly Ala Arg Ser Lys Arg Ala Leu Glu Glu Glu Glu
      290      295      300
Gly Gly Thr Glu Val Leu Ser Lys Asn Lys Gln Lys Lys Gln Leu Arg
      305      310      315      320
Asn Pro His Lys Thr Phe Asp Pro Ser Leu Lys Pro Lys Tyr Ala Lys
      325      330      335
Cys Asp Gln Cys Gly Asn Pro Lys Gly Asn Arg Cys Val Phe Ser Leu
      340      345      350
Cys Arg Gly Cys Cys Lys Lys Arg Ala Ser Lys Glu Thr Ala Asp Cys
      355      360      365
Pro Gly His Gly Leu Leu Phe Lys Thr Lys Leu Glu Lys Ser Leu Ala
      370      375      380
Trp Lys Glu Ala Gln Pro Glu Leu Gln Glu Pro Gln Pro Ala Ala Pro
      385      390      395      400
Gly Thr Pro Gly Gly Phe Ser Glu Val Met Gly Ser Ala Leu Ala
      405      410      415

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&lt;210&gt; 5757

&lt;211&gt; 2362

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5757

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120
tggagccccg tactggaggg cgacgggggt gacggggacg ctgaggacac agagcggagg
180
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300

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<212> PRT

<213> Homo sapiens

<400> 5758

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&lt;211&gt; 1333

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5759

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&lt;211&gt; 1452

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5761

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<210> 5764

<211> 466

<212> PRT

<213> Homo sapiens

<400> 5764

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Tyr Tyr Leu Ala Cys Gly Phe Cys Arg Trp Thr Ser Arg Asp Val Gly
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Lys His Leu Leu Ile Lys Arg Ser Leu Arg Cys Arg Lys Cys Glu His
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Pro Asn Leu Arg Tyr Met Lys Glu Ser Gln Val Leu Leu Thr Leu Thr
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Asn Pro Val Glu Asn Leu Thr His Val Thr Leu Phe Glu Cys Glu Glu
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Gly Asp Pro Asp Asp Ile Asn Ser Thr Ala Lys Val Val Val Pro Pro
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      385          390          395          400
Arg Lys Ala Asn Lys Val Gly Ile Phe Ile Lys Val Thr Pro Gln Arg
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Glu Glu Gly Glu Val Thr Val Cys Phe Lys Met Lys His Asp Phe Lys
      420          425          430
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Leu Pro
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&lt;210&gt; 5765

&lt;211&gt; 3220

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5765

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<210> 5766  
 <211> 873  
 <212> PRT  
 <213> Homo sapiens

<400> 5766  
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 35 40 45  
 Met Asp Leu Arg Ser Asp Asp Gln Asp Leu Thr Arg Met Ile His Ile  
 50 55 60  
 Leu Asp Thr Glu His Pro Trp Asp Leu His Ser Ile Pro Ser Glu His  
 65 70 75 80  
 His Glu Ala Ile Thr Cys Leu Glu Trp Asp Gln Ser Gly Ser Arg Leu  
 85 90 95  
 Leu Ser Ala Asp Ala Asp Gly Gln Ile Lys Cys Trp Ser Met Ala Asp  
 100 105 110  
 His Leu Ala Asn Ser Trp Glu Ser Ser Val Gly Ser Leu Val Glu Gly  
 115 120 125  
 Asp Pro Ile Val Ala Leu Ser Trp Leu His Asn Gly Val Lys Leu Ala  
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 Arg Val Lys Phe Ser Pro Ser Leu Thr Leu Phe Gly Gly Lys Pro Met  
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 Glu Gly Trp Ile Ala Val Thr Val Ser Gly Leu Val Thr Val Ser Leu  
 180 185 190  
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 195 200 205  
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 Asn Ile Val Val Ala Thr Ala Asp Gly Ser Ser Ala Ser Pro Val Gln  
 225 230 235 240  
 Phe Tyr Lys Val Cys Val Ser Val Val Ser Glu Lys Cys Arg Ile Asp  
 245 250 255  
 Thr Glu Ile Leu Pro Ser Leu Phe Met Arg Cys Thr Thr Asp Leu Asn  
 260 265 270  
 Arg Lys Asp Lys Phe Pro Ala Ile Thr His Leu Lys Phe Leu Ala Arg  
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 Asp Met Ser Glu Gln Val Leu Leu Cys Ala Ser Ser Gln Thr Ser Ser  
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 Cys Met Val Thr Gly Tyr Asp Trp Trp Asp Ile Leu Leu His Val Gln  
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 Cys Asp Tyr His Thr Lys Leu Phe Leu Ile Ala Ile Ser Ser Thr Leu  
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 Lys Ser Leu Leu Arg Pro His Phe Leu Asn Thr Pro Asp Lys Ser Pro  
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 Gly Asp Arg Leu Thr Glu Ile Cys Thr Lys Ile Thr Asp Val Asp Ile  
 580 585 590  
 Asp Lys Val Met Ile Asn Leu Lys Thr Glu Glu Phe Val Leu Asp Met  
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 705 710 715 720  
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 740 745 750  
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 755 760 765  
 Gly Leu Val Ser Arg Leu Gln Pro Lys Gln Pro Leu Arg Leu Gln Phe

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Gly Arg Ala Pro Thr Leu	Pro Gly Ser Ala Ala Thr	Leu Gln Leu Asp		
785	790	795	800	
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805	810	815		
Leu His Leu Gly Ala Cys Pro Thr	Glu Glu Cys Lys Ala Cys Thr Arg			
820	825	830		
Cys Gly Cys Val Thr Met Leu Lys Ser Pro Asn Arg Thr Thr Ala Val				
835	840	845		
Lys Gln Trp Glu Gln Arg Trp Ile Lys Asn Cys Leu Cys Gly Gly Leu				
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<210> 5767  
 <211> 1910  
 <212> DNA  
 <213> Homo sapiens

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 360  
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 1020

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&lt;210&gt; 5768

&lt;211&gt; 360

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5768

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Asn	Ile	Cys	Phe	Ala	Val	Gly	Leu	Val	Ile	Pro	Thr	Thr	Leu	His	Leu
		50				55				60					
His	Met	Ile	Phe	Leu	Arg	Gly	Met	Leu	Thr	Leu	Gly	Cys	Thr	Leu	Tyr
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Ile	Val	Trp	Ala	Thr	Leu	Tyr	Arg	Cys	Ala	Leu	Asp	Ile	Met	Ile	Trp
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Asn	Ser	Val	Phe	Leu	Gly	Val	Asn	Ile	Leu	His	Leu	Ser	Tyr	Leu	Leu
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Tyr	Lys	Lys	Arg	Pro	Val	Lys	Ile	Glu	Lys	Glu	Leu	Ser	Gly	Met	Tyr
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Leu Lys Gly Lys Met Lys Val Ser Tyr Arg Gly His Phe Leu His Asn
      180      185      190
Ile Tyr Pro Cys Ala Phe Ile Asp Ser Pro Glu Phe Arg Ser Thr Gln
      195      200      205
Met His Lys Gly Glu Lys Phe Gln Val Thr Ile Ile Ala Asp Asp Asn
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Lys Ala Lys Lys Leu Glu His Gln Leu Ser Leu Cys Thr Gln Ile Ser
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Thr Leu Lys Val His Gln Leu Pro
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&lt;210&gt; 5769

&lt;211&gt; 427

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5769

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427

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&lt;210&gt; 5770



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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Lys Asp Glu Ala Ser Lys Ile Pro Ile Trp Lys Glu Gln Tyr Arg Val  
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 Leu Asn Ser Cys Ile  
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<210> 5771  
 <211> 2539  
 <212> DNA  
 <213> Homo sapiens

<400> 5771  
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 420  
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 480  
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 540  
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 720  
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 780  
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 840  
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 900

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2160  
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2280  
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2539

<210> 5772  
<211> 642  
<212> PRT  
<213> Homo sapiens

<400> 5772  
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Cys Leu Ala Asn Gly Ser Trp Ser Gly Ala Thr Pro Asp Cys Val Pro  
20 25 30  
Val Arg Cys Ala Thr Pro Pro Gln Leu Ala Asn Gly Val Thr Glu Gly  
35 40 45  
Leu Asp Tyr Gly Phe Met Lys Glu Val Thr Phe His Cys His Gly Leu  
50 55 60  
His Leu Ala Arg Cys Ser Lys Thr His Leu Ser Val Arg Gly Asn Trp  
65 70 75 80  
Asp Ala Glu Ile Pro Leu Cys Lys Pro Val Asn Cys Gly Pro Pro Glu  
85 90 95  
Asp Leu Ala His Gly Phe Pro Asn Gly Phe Ser Phe Ile His Gly Gly  
100 105 110  
His Ile Gln Tyr Gln Cys Phe Pro Gly Tyr Lys Leu His Gly Asn Ser  
115 120 125  
Ser Arg Arg Cys Leu Ser Asn Gly Ser Trp Ser Gly Ser Ser Pro Ser  
130 135 140  
Cys Leu Pro Cys Arg Cys Ser Thr Pro Val Ile Glu Tyr Gly Thr Val  
145 150 155 160  
Asn Gly Thr Asp Phe Asp Cys Gly Lys Ala Ala Arg Ile Gln Cys Phe  
165 170 175  
Lys Gly Phe Lys Leu Leu Gly Leu Ser Glu Ile Thr Cys Glu Ala Asp  
180 185 190  
Gly Gln Trp Ser Ser Gly Phe Pro His Cys Glu His Thr Ser Cys Gly  
195 200 205  
Ser Leu Pro Met Ile Pro Asn Ala Phe Ile Ser Glu Thr Ser Ser Trp  
210 215 220  
Lys Glu Asn Val Ile Thr Tyr Ser Cys Arg Ser Gly Tyr Val Ile Gln  
225 230 235 240  
Gly Ser Ser Asp Leu Ile Cys Thr Glu Lys Gly Val Trp Asn Gln Pro  
245 250 255  
Tyr Pro Val Cys Glu Pro Leu Ser Cys Gly Ser Pro Pro Ser Val Ala  
260 265 270  
Asn Ala Val Ala Thr Gly Glu Ala His Thr Tyr Glu Ser Glu Val Lys  
275 280 285  
Leu Arg Cys Leu Glu Gly Tyr Thr Met Asp Thr Asp Thr Asp Thr Ile  
290 295 300  
Thr Cys Gln Lys Asp Gly Arg Trp Phe Pro Glu Arg Ile Ser Cys Ser  
305 310 315 320  
Pro Lys Lys Cys Pro Leu Pro Glu Asn Ile Thr His Ile Leu Val His  
325 330 335  
Gly Asp Asp Phe Ser Val Asn Arg Gln Val Ser Val Ser Cys Ala Glu  
340 345 350  
Gly Tyr Thr Phe Glu Gly Val Asn Ile Ser Val Cys Gln Leu Asp Gly

```

      355      360      365
Thr Trp Glu Pro Pro Phe Ser Asp Glu Ser Cys Ser Pro Val Ser Cys
 370      375      380
Gly Lys Pro Glu Ser Pro Glu His Gly Phe Val Val Gly Ser Lys Tyr
 385      390      395      400
Thr Phe Glu Ser Thr Ile Ile Tyr Gln Cys Glu Pro Gly Tyr Glu Leu
      405      410      415
Glu Gly Asn Arg Glu Arg Val Cys Gln Glu Asn Arg Gln Trp Ser Gly
      420      425      430
Gly Val Ala Ile Cys Lys Glu Thr Arg Cys Glu Thr Pro Leu Glu Phe
      435      440      445
Leu Asn Gly Lys Ala Asp Ile Glu Asn Arg Thr Thr Gly Pro Asn Val
      450      455      460
Val Tyr Ser Cys Asn Arg Gly Tyr Ser Leu Glu Gly Pro Ser Glu Ala
      465      470      475      480
His Cys Thr Glu Asn Gly Thr Trp Ser His Pro Val Pro Leu Cys Lys
      485      490      495
Pro Asn Pro Cys Pro Val Pro Phe Val Ile Pro Glu Asn Ala Leu Leu
      500      505      510
Ser Glu Lys Glu Phe Tyr Val Asp Gln Asn Val Ser Ile Lys Cys Arg
      515      520      525
Glu Gly Phe Leu Leu Gln Gly His Gly Ile Ile Thr Cys Asn Pro Asp
      530      535      540
Glu Thr Trp Thr Gln Thr Ser Ala Lys Cys Glu Lys Ile Ser Cys Gly
      545      550      555      560
Pro Pro Ala His Val Glu Asn Ala Ile Ala Arg Gly Val His Tyr Gln
      565      570      575
Tyr Gly Asp Met Ile Thr Tyr Ser Cys Tyr Ser Gly Tyr Met Leu Glu
      580      585      590
Gly Phe Leu Arg Ser Val Cys Leu Glu Asn Gly Thr Trp Thr Ser Pro
      595      600      605
Pro Ile Cys Arg Ala Val Cys Arg Phe Pro Cys Gln Asn Gly Gly His
      610      615      620
Leu Pro Thr Pro Lys Cys Leu Phe Leu Ser Arg Gly Leu Asp Gly Ala
      625      630      635      640
Pro Leu

```

&lt;210&gt; 5773

&lt;211&gt; 579

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5773

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nnacgcgtga ggggcctgag gcgagcgggt agagcgtctc ccggaaggat gggccggtct
60
cggagccgga gctcgtcccg ctccaagcac accaagagca gcaagcacia caagaagcgc
120
agccggtccc ggtcgcgata ccgggacaag gagcgcgtgc ggaagcgttc caaatctcgg
180
gaaagtaaac ggaaccggcg gcgggagtcg cggtcccggt cgcgctccac caacacggcc
240
gtgtcccggc gcgagcggga ccgggagcgc cctcgtcccc gcccgaccgc atcgacatct
300

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tcgggagcac ggtgagcaag cgcagcagcc tggacgagaa gcagaagcga gaggaggagg  
 360  
 agaagaaagc ggagttcgag cggcagcgaa aaattcgaca gcaagaaata gaagaaaaac  
 420  
 tcatcgagga agaaacagca cgaagagtag aagaattggt agcaanaaag ggtggaggaa  
 480  
 gaactggaga aaaggaagga tgaaattgaa cgagaagttc tccgaagggt ggaggaagcc  
 540  
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 579

<210> 5774  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 5774  
 Xaa Arg Val Arg Gly Leu Arg Arg Ala Val Arg Ala Ser Pro Gly Arg  
 1 5 10 15  
 Met Gly Arg Ser Arg Ser Arg Ser Ser Arg Ser Lys His Thr Lys  
 20 25 30  
 Ser Ser Lys His Asn Lys Lys Arg Ser Arg Ser Arg Ser Arg  
 35 40 45  
 Asp Lys Glu Arg Val Arg Lys Arg Ser Lys Ser Arg Glu Ser Lys Arg  
 50 55 60  
 Asn Arg Arg Arg Glu Ser Arg Ser Arg Ser Arg Thr Asn Thr Ala  
 65 70 75 80  
 Val Ser Arg Arg Glu Arg Asp Arg Glu Arg Pro Arg Pro Arg Pro Thr  
 85 90 95  
 Ala Ser Thr Ser Ser Gly Ala Arg  
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<210> 5775  
 <211> 1441  
 <212> DNA  
 <213> Homo sapiens

<400> 5775  
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 tggcagccct aggggacatt caggagtccc cttctgtccc gtcccctgtc agtctctcat  
 120  
 caccggggac acctggaacc cagcaccacg agcctcagct tcacctccat gggcatcaac  
 180  
 atgcctaagg tgctctccca gccgtccgac ctggatctcc aagacgtaga ggaagtggag  
 240  
 atcggcagag acaccttctg gcccgaactcc gagcccaagc cggagcaggc tccacgctct  
 300  
 cctggctctc agggccctga cgagggggcg ggcggggcg tgcgcacctc cgtgaggagc  
 360  
 cttccccgca gggcccggtg cagcgccggc ttcgggcctg aatccagcgc ggagcggcgc  
 420  
 gcggggcagc cgcctggggc cgtcccttgc gccagccgc gggggcctg gcgcgtgacg  
 480

ctctgtgcagc aagcagcggc cgggcccagc ggtgcgcccg agcgggctgc cgagctggga  
 540  
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 600  
 gcctgcggca agagtttcaa gtataactcg ctgctcctga agcaccagcg catccacacg  
 660  
 ggcgagaagc cctacgcctg ccacgagtg cccaagtgtt tcgcccagc ttcgcgcttc  
 720  
 atccagcacc agcgcaccca cagcggcgag aagccctacg cctgcccga gtgcagcaag  
 780  
 accttcacgc gcagctccaa cctcatcaag caccaggtca tccacagcgg cgagcggccc  
 840  
 ttcgcctcgc gcgactgcgg caaactgttc cgccgcagct tcgcgctcct ggagcacgcg  
 900  
 cgctgtcaca gcggcgagaa gccctacgag tgctccgact gcggcaagt cttccgcggc  
 960  
 cgctgcgact tcttcgggca caaccgcaca cacacgggag agaagcccta ccactgcctc  
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 1080  
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 1380  
 ggggggaggg gagggcgaga aagggcaggc actctgcgaa ttaaaggcct tggacttgaa  
 1440  
 a  
 1441

&lt;210&gt; 5776

&lt;211&gt; 359

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5776

Met Gly Ile Asn Met Pro Lys Val Leu Ser Gln Pro Ser Asp Leu Asp  
 1 5 10 15  
 Leu Gln Asp Val Glu Glu Val Glu Ile Gly Arg Asp Thr Phe Trp Pro  
 20 25 30  
 Asp Ser Glu Pro Lys Pro Glu Gln Ala Pro Arg Ser Pro Gly Ser Gln  
 35 40 45  
 Ala Pro Asp Glu Gly Ala Gly Gly Ala Leu Arg Thr Ser Val Arg Ser  
 50 55 60  
 Leu Pro Arg Arg Ala Arg Cys Ser Ala Gly Phe Gly Pro Glu Ser Ser  
 65 70 75 80  
 Ala Glu Arg Pro Ala Gly Gln Pro Pro Gly Ala Val Pro Cys Ala Gln  
 85 90 95  
 Pro Arg Gly Ala Trp Arg Val Thr Leu Val Gln Gln Ala Ala Ala Gly

```

      100      105      110
Pro Glu Gly Ala Pro Glu Arg Ala Ala Glu Leu Gly Val Asn Phe Gly
      115      120      125
Arg Ser Arg Gln Gly Ser Ala Arg Gly Thr Lys Pro His Arg Cys Glu
      130      135      140
Ala Cys Gly Lys Ser Phe Lys Tyr Asn Ser Leu Leu Lys His Gln
      145      150      155      160
Arg Ile His Thr Gly Glu Lys Pro Tyr Ala Cys His Glu Cys Gly Lys
      165      170      175
Cys Phe Ala Ala Ala Ser Arg Phe Ile Gln His Gln Arg Ile His Ser
      180      185      190
Gly Glu Lys Pro Tyr Ala Cys Pro Glu Cys Ser Lys Thr Phe Thr Arg
      195      200      205
Ser Ser Asn Leu Ile Lys His Gln Val Ile His Ser Gly Glu Arg Pro
      210      215      220
Phe Ala Cys Gly Asp Cys Gly Lys Leu Phe Arg Arg Ser Phe Ala Leu
      225      230      235      240
Leu Glu His Ala Arg Val His Ser Gly Glu Lys Pro Tyr Glu Cys Ser
      245      250      255
Asp Cys Gly Lys Cys Phe Arg Gly Arg Ser His Phe Phe Arg His Asn
      260      265      270
Arg Thr His Thr Gly Glu Lys Pro Tyr His Cys Leu Asp Cys Gly Lys
      275      280      285
Ser Phe Ser His Ser Ser His Leu Ile Lys His Gln Arg Thr His Arg
      290      295      300
Gly Val Arg Pro Tyr Ala Cys Pro Leu Cys Gly Lys Ser Phe Ser Arg
      305      310      315      320
Arg Ser Asn Leu His Arg His Glu Lys Ile His Thr Thr Gly Pro Lys
      325      330      335
Ala Leu Ala Met Leu Met Leu Gly Ala Ala Ala Gly Ala Leu Ala
      340      345      350
Thr Pro Pro Pro Ala Pro Thr
      355

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&lt;210&gt; 5777

&lt;211&gt; 1431

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5777

```

ggaaggctcg cctgggagct catacctggc tggggccgag gattggctgt tccggggcta
60
gggagcgctt tctcccgga accgcgctg tgacccaagt gggccggacc agtttggggc
120
tgcgtgcggc ctgcctcaag caaccaggta cgtaggtcgg cggcccagct cggcgtgcg
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240
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300
gcagatgtcg ccttaggacc tcggccagga taccctctgc catgctcttg tgctgccgt
360
gatcaccgac tggccttgt aagcaccttc gcagcaggaa gccagagct gcgctgccc
420

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 720  
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 1320  
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 taagtggcaa ataaaaacat ttgcatcaaa aaaaaaaaaa aaaaaaaaaa a  
 1431

&lt;210&gt; 5778

&lt;211&gt; 164

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5778

Met Leu Thr Leu Lys Gly Ser Ser Asp Arg Pro Gln Met Gly Met Gly  
 1 5 10 15  
 Gln Ala Lys Met Arg Pro Leu Gln Pro Leu Pro Gln Pro Ser Glu Arg  
 20 25 30  
 Ala Gly Ala Ala Leu Gly Phe Leu Leu Arg Arg Cys Leu Gln Gly Pro  
 35 40 45  
 Val Gly Asp His Gly Gln His Lys Ser Met Ala Glu Gly Ile Leu Ala  
 50 55 60  
 Glu Val Leu Arg Arg His Leu Gln His Glu Glu Ala Pro Gly Leu Arg  
 65 70 75 80  
 Arg Gly Arg Phe Ala Glu Arg Arg Gly Pro Lys Trp Ile Trp Arg Ser  
 85 90 95  
 Arg Pro Ala Gly Thr Pro Ala Leu Thr Val Ala Leu Arg Leu Pro Pro



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      100      105      110
Gln Arg Arg Ala Gly Pro Pro Thr Tyr Val Pro Gly Cys Leu Arg Gln
      115      120      125
Ala Ala Arg Ser Pro Lys Leu Val Arg Ala Thr Trp Val Thr Ala Ala
      130      135      140
Val Pro Gly Arg Lys Arg Ser Leu Ala Pro Glu Gln Pro Ile Leu Gly
      145      150      155      160
Pro Ser Gln Val

```

<210> 5779  
 <211> 371  
 <212> DNA  
 <213> Homo sapiens

```

<400> 5779
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cgaggagagag gggtagtttc agccttgtct ggcattccctt gtgtctgcnt gaggggtgtgt
120
gcacacggga atgtgtgcgg gtgtgtgtgc gtgcattgcag ctgtgtgtgg atgtgcantc
180
gtgtgtgggt gtgtaggtgt gtgtgggtgt gtgcaccagt gcaggtgtgc atgggtgtgt
240
acaggtgggt gtgtgtatgt gtgtgggggt gtgcccattct gtgcaggtgt gtgggtgtgc
300
aggggtcncat gcctgtgtgt ggggtgtgnc ccgtgtgtac ccctgtggag gtgtgtgggt
360
gtgtgcagtg t
371

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<210> 5780  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

```

<400> 5780
Leu Leu Arg Arg Val Glu Gly Arg Lys Gly Arg Thr His Asp Leu Pro
1      5      10      15
Gln Arg His Gly Arg Glu Arg Gly Val Ile Ser Ala Leu Ser Gly Ile
20     25     30
Pro Cys Val Cys Xaa Arg Val Cys Ala His Gly Asn Val Cys Gly Cys
35     40     45
Val Cys Val His Ala Ala Val Cys Gly Cys Ala Xaa Val Cys Gly Cys
50     55     60
Val Gly Val Cys Gly Cys Val His Gln Cys Arg Cys Ala Trp Val Cys
65     70     75     80
Thr Gly Gly Cys Val Tyr Val Cys Gly Gly Val Pro Ile Cys Ala Gly
85     90     95
Val Trp Val Cys Arg Val Xaa Cys Leu Cys Val Gly Val Xaa Pro Cys
100    105    110
Val Pro Leu Trp Arg Cys Val Gly Val Cys Ser
115    120

```

<210> 5781  
 <211> 845  
 <212> DNA  
 <213> Homo sapiens

<400> 5781  
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 60  
 ggcgctggcg tgcggtgtca tttctgcggt gtaaatgctc ccaccttggc cgatttcaag  
 120  
 ccaccagggt aggatggcac tgcaacatct tccactgagg ctccagctgc cctctcaggt  
 180  
 acatcagggc ctggancgtc ctctctcca ggagggccag gactcggccc cctgccagcc  
 240  
 cccgaagcat tgcagccagg agtgcagcgt gggggccctg caggccatgg ccaggcccca  
 300  
 gcgccaccag caccagggtca ggctggaagc cataggccag gggcagcacc aagcccaaga  
 360  
 tgcagctcag gaaaccaccg gtcactactg gcagtggcgt ggagacatgg aacatggata  
 420  
 gggcagccgc ctcttgccc ctgatgttca gccacagact cctcccgtca tggcgaggt  
 480  
 ctggaggccg gtccagctgt cccagggccca cgcacagcag cctggaagaa gagctggcct  
 540  
 caggacaggt gtctatgttg tccagagtcc attcccagaa ctctctgtgc ttggccagcc  
 600  
 aggatagggg tccccacagg tccctccgtc agaggctcag gatggccaag tgaggcttac  
 660  
 ctctgggctc cgtgggacag gcctctccga acagccacat ccagggtggc tgctgcagca  
 720  
 gagctggag tggtctgtat accactgttc acctgtggga tgaataaaca gtggagaatg  
 780  
 aggcaccaac caactcccaa gccaggtaaa cagatccaca gttcccttca ttcggtgtgt  
 840  
 ctctg  
 845

<210> 5782  
 <211> 147  
 <212> PRT  
 <213> Homo sapiens

<400> 5782  
 Gly Val Pro Cys Pro Lys Ile Glu Gly Ala Val Gly Leu Gly Ser Gly  
 1 5 10 15  
 Ser Arg Pro Arg Gly Ala Gly Val Arg Cys His Phe Cys Gly Val Asn  
 20 25 30  
 Ala Pro Thr Leu Ala Asp Phe Lys Pro Pro Gly Glu Asp Gly Thr Ala  
 35 40 45  
 Thr Ser Ser Thr Glu Ala Pro Ala Ala Leu Ser Gly Thr Ser Gly Pro  
 50 55 60  
 Gly Xaa Ser Ser Pro Pro Gly Gly Pro Gly Leu Gly Pro Leu Pro Ala  
 65 70 75 80  
 Pro Glu Ala Leu Gln Pro Gly Val Gln Arg Gly Gly Pro Ala Gly His

```

      85              90              95
Gly Gln Ala Pro Ala Pro Pro Ala Pro Gly Gln Ala Gly Ser His Arg
      100              105              110
Pro Gly Ala Ala Pro Ser Pro Arg Cys Ser Ser Gly Asn His Arg Ser
      115              120              125
Ser Leu Ala Val Ala Trp Arg His Gly Thr Trp Ile Gly Gln Pro Pro
      130              135              140
Pro Cys Pro
145

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<210> 5783
<211> 1839
<212> DNA
<213> Homo sapiens

```

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<400> 5783
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ctggtgatcc agcagcgagg ggtgcgaatc tacgatggcg aggagaagat aaaatttgat
120
gctgggactc tccttcttag tacacaccga ctgatttga gagatcagaa aaatcatgag
180
tggtgcatgg ccattctcct ttcccaaatt gtgttcattg aagaacaggc ggctggaatt
240
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&lt;210&gt; 5784

&lt;211&gt; 386

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5784

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Ile Lys Phe Asp Ala Gly Thr Leu Leu Leu Ser Thr His Arg Leu Ile
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Trp Arg Asp Gln Lys Asn His Glu Cys Cys Met Ala Ile Leu Leu Ser
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Gln Ile Val Phe Ile Glu Glu Gln Ala Ala Gly Ile Gly Lys Ser Ala
 65          70          75          80
Lys Ile Val Val His Leu His Pro Ala Pro Pro Asn Lys Glu Pro Gly
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Pro Phe Gln Ser Ser Lys Asn Ser Tyr Ile Lys Leu Ser Phe Lys Glu
100         105         110
His Gly Gln Ile Glu Phe Tyr Arg Arg Leu Ser Glu Glu Met Thr Gln
115         120         125
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Gly Pro Gln Pro Gly Arg Ile Arg Ala Val Gly Ile Val Gly Ile Glu
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Arg Lys Leu Glu Glu Lys Arg Lys Glu Thr Asp Lys Asn Ile Ser Glu
165         170         175
Ala Phe Glu Asp Leu Ser Lys Leu Met Ile Lys Ala Lys Glu Met Val

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Glu Leu Ser Lys Ser Ile Ala Asn Lys Ile Lys Asp Lys Gln Gly Asp		
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210	215	220
Gly Ile Ala Asn Pro Val Thr Arg Glu Thr Tyr Gly Ser Gly Thr Gln		
225	230	235
Tyr His Met Gln Leu Ala Lys Gln Leu Ala Gly Ile Leu Gln Val Pro		
245	250	255
Leu Glu Glu Arg Gly Gly Ile Met Ser Leu Thr Glu Val Tyr Cys Leu		
260	265	270
Val Asn Arg Ala Arg Gly Met Glu Leu Leu Ser Pro Glu Asp Leu Val		
275	280	285
Asn Ala Cys Lys Met Leu Glu Ala Leu Lys Leu Pro Leu Arg Leu Arg		
290	295	300
Val Phe Asp Ser Gly Val Met Val Ile Glu Leu Gln Ser His Lys Glu		
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Glu Glu Met Val Ala Ser Ala Leu Glu Thr Val Ser Glu Lys Gly Ser		
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Leu Thr Ser Glu Glu Phe Ala Lys Leu Val Gly Met Ser Val Leu Leu		
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Ala Lys Glu Arg Leu Leu Leu Ala Glu Lys Met Gly His Leu Cys Arg		
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Asp Asp Ser Val Glu Gly Leu Arg Phe Tyr Pro Asn Leu Phe Met Thr		
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Gln Ser		
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&lt;210&gt; 5785

&lt;211&gt; 785

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5785

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 <212> PRT  
 <213> Homo sapiens

<400> 5786  
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 Leu Ala Gln Pro Leu Gly Pro Trp Pro Leu Ser Ser Ala Gly Pro Arg  
 50 55 60  
 Leu Val Phe Asn Arg Val Asn Arg Arg Arg Asp Pro Ser Lys Ser Pro  
 65 70 75 80  
 Ser Leu Gln Gly Thr Gln Glu Thr Tyr Thr Leu Ala His Lys Glu Asn  
 85 90 95  
 Val Arg Phe Val Ser Glu Ala Trp Gln Gln Val Gln Gln Gln Leu Asp  
 100 105 110  
 Gly Gly Pro Ala Gly Glu Gly Gly Pro Arg Pro Val Gln Tyr Val Glu  
 115 120 125  
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5788

&lt;211&gt; 417

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5788

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Ser Cys Glu Tyr Glu Thr Arg Leu Pro Gly Asn His Ser Thr Ser Gln			
35	40	45	
Glu Ile Phe Arg Gln Arg Phe Arg His Leu Arg Tyr Gln Glu Thr Pro			
50	55	60	
Gly Pro Arg Glu Ala Leu Ser Gln Leu Arg Val Leu Cys Cys Glu Trp			
65	70	75	80
Leu Arg Pro Glu Lys His Thr Lys Glu Gln Ile Leu Glu Phe Leu Val			
85	90	95	
Leu Glu Gln Phe Leu Thr Ile Leu Pro Glu Glu Leu Gln Ser Trp Val			
100	105	110	
Arg Gly His His Pro Lys Ser Gly Glu Glu Ala Val Thr Val Leu Glu			
115	120	125	
Asp Leu Glu Lys Gly Leu Glu Pro Glu Pro Gln Val Pro Gly Pro Ala			
130	135	140	
His Gly Pro Ala Gln Glu Glu Pro Trp Glu Lys Lys Glu Ser Leu Gly			
145	150	155	160
Ala Ala Gln Glu Ala Leu Ser Ile Gln Leu Gln Pro Lys Glu Thr Gln			
165	170	175	
Pro Phe Pro Lys Ser Glu Gln Val Tyr Leu His Phe Leu Ser Val Val			
180	185	190	
Thr Glu Asp Gly Pro Glu Pro Lys Asp Lys Gly Ser Leu Pro Gln Pro			
195	200	205	
Pro Ile Thr Glu Val Glu Ser Gln Val Phe Ser Glu Lys Leu Ala Thr			
210	215	220	
Asp Thr Ser Thr Phe Glu Ala Thr Ser Glu Gly Thr Leu Glu Leu Gln			
225	230	235	240
Gln Arg Asn Pro Lys Ala Glu Arg Leu Arg Trp Ser Pro Ala Gln Glu			
245	250	255	
Glu Ser Phe Arg Gln Met Val Val Ile His Lys Glu Ile Pro Thr Gly			
260	265	270	
Lys Lys Asp His Glu Cys Ser Glu Cys Gly Lys Thr Phe Ile Tyr Asn			
275	280	285	
Ser His Leu Val Val His Gln Arg Val His Ser Gly Glu Lys Pro Tyr			
290	295	300	
Lys Cys Ser Asp Cys Gly Lys Thr Phe Lys Gln Ser Ser Asn Leu Gly			
305	310	315	320
Gln His Gln Arg Ile His Thr Gly Glu Lys Pro Phe Glu Cys Asn Glu			
325	330	335	
Cys Gly Lys Ala Phe Arg Trp Gly Ala His Leu Val Gln His Gln Arg			
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Ile His Ser Gly Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly Lys Ala			
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Phe Ser Gln Ser Ser Tyr Leu Ser Gln His Arg Arg Ile His Ser Gly			
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Glu Lys Pro Phe Ile Cys Lys Glu Cys Gly Lys Ala Tyr Gly Trp Cys			
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<212> DNA  
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<212> PRT  
<213> Homo sapiens

&lt;400&gt; 5790

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 Pro Gln Pro Gly Ala Gly His Asp Glu Gly Pro Gly Ser Gly Trp Ala  
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 Ala Lys Gly Thr Val Arg Gly Trp Asn Arg Arg Ala Arg Glu Ser Pro  
 65 70 75 80  
 Gly His Val Ser Glu Pro Asp Arg Thr Gln Leu Ser Gln Asp Leu Gly  
 85 90 95  
 Gly Gly Thr Leu Ala Met Asp Thr Leu Pro Asp Asn Arg Thr Arg Val  
 100 105 110  
 Val Glu Asp Asn His Ser Tyr Tyr Val Ser Arg Leu Tyr Gly Pro Ser  
 115 120 125  
 Glu Pro His Ser Arg Glu Leu Trp Val Asp Val Ala Glu Ala Asn Arg  
 130 135 140  
 Ser Gln Val Lys Ile His Thr Ile Leu Ser Asn Thr His Arg Gln Ala  
 145 150 155 160  
 Ser Arg Val Val Leu Ser Phe Asp Phe Pro Phe Tyr Gly His Pro Leu  
 165 170 175  
 Arg Gln Ile Thr Ile Ala Thr Gly Gly Phe Ile Phe Met Gly Asp Val  
 180 185 190  
 Ile His Arg Met Leu Thr Ala Thr Gln Tyr Val Ala Pro Leu Met Ala  
 195 200 205  
 Asn Phe Asn Pro Gly Tyr Ser Asp Asn Ser Thr Val Val Tyr Phe Asp  
 210 215 220  
 Asn Gly Thr Val Phe Val Val Gln Trp Asp His Val Tyr Leu Gln Gly  
 225 230 235 240  
 Trp Glu Asp Lys Gly Ser Phe Thr Phe Gln Ala Ala Leu His His Asp  
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 Gly Arg Ile Val Phe Ala Tyr Lys Glu Ile Pro Met Ser Val Pro Glu  
 260 265 270  
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 Ile Phe Glu Tyr His Arg Ile Glu Leu Asp Pro Ser Lys Val Thr Ser  
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 Cys His Val Leu Gln Arg Cys Ser Ser Gly Phe Asp Arg Tyr Arg Gln  
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&lt;210&gt; 5791

&lt;211&gt; 3285

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5791

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<212> PRT

<213> Homo sapiens

<400> 5792

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<211> 209

<212> PRT

<213> Homo sapiens

<400> 5794

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&lt;211&gt; 200

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5796

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Tyr	Leu	Arg	Lys	Glu	Met	Thr	Gln	Asn	Ile	Tyr	Gln	Met	Ala	Thr	Phe
			35				40					45			
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Ala	Thr	Leu	Pro	Phe	Leu	Ser	Thr	Val	Val	Thr	Asp	Lys	Leu	Phe	Val
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Pro Leu Pro Pro Lys Gly Arg Val Leu Ile His Trp Met Thr Leu Cys
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Gln Thr Gln Met Lys Leu Met Ala Ile Pro Leu Val Phe Gln Ile Met
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5797

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&lt;210&gt; 5798

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Ser Gln Arg Asn Tyr Arg Ser Leu Ser Leu Tyr Cys Trp Leu Ala Arg
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Glu Gly Arg Thr Ser Ser Tyr Gln Gly Asn Gln Gly Ser Leu Arg Pro
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 a  
 4261

&lt;210&gt; 5800

&lt;211&gt; 535

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5800

Met Glu Glu Gly Ala Arg His Arg Asn Asn Thr Glu Lys Lys His Pro

1

5

10

15

Gly Gly Gly Glu Ser Asp Ala Ser Pro Glu Ala Gly Ser Gly Gly Gly

	20		25		30
Gly Val	Ala Leu Lys Lys Glu Ile	Gly Leu Val Ser	Ala Cys Gly Ile		
	35	40	45		
Ile Val	Gly Asn Ile Ile Gly Ser Gly Ile	Phe Val Ser Pro Lys Gly			
	50	55	60		
Val Leu	Glu Asn Ala Gly Ser Val Gly Leu Ala Leu Ile Val Trp Ile				
	65	70	75	80	
Val Thr	Gly Phe Ile Thr Val Val Gly Ala Leu Cys Tyr Ala Glu Leu				
	85	90	95		
Gly Val	Thr Ile Pro Lys Ser Gly Gly Asp Tyr Ser Tyr Val Lys Asp				
	100	105	110		
Ile Phe	Gly Gly Leu Ala Gly Phe Leu Arg Leu Trp Ile Ala Val Leu				
	115	120	125		
Val Ile	Tyr Pro Thr Asn Gln Ala Val Ile Ala Leu Thr Phe Ser Asn				
	130	135	140		
Tyr Val	Leu Gln Pro Leu Phe Pro Thr Cys Phe Pro Pro Glu Ser Gly				
	145	150	155	160	
Leu Arg	Leu Leu Ala Ala Ile Cys Leu Leu Leu Leu Thr Trp Val Asn				
	165	170	175		
Cys Ser	Ser Val Arg Trp Ala Thr Arg Val Gln Asp Ile Phe Thr Ala				
	180	185	190		
Gly Lys	Leu Leu Ala Leu Ala Leu Ile Ile Ile Met Gly Ile Val Gln				
	195	200	205		
Ile Cys	Lys Gly Glu Tyr Phe Trp Leu Glu Pro Lys Asn Ala Phe Glu				
	210	215	220		
Asn Phe	Gln Glu Pro Asp Ile Gly Leu Val Ala Leu Ala Phe Leu Gln				
	225	230	235	240	
Gly Ser	Phe Ala Tyr Gly Gly Trp Asn Phe Leu Asn Tyr Val Thr Glu				
	245	250	255		
Glu Leu	Val Asp Pro Tyr Lys Asn Leu Pro Arg Ala Ile Phe Ile Ser				
	260	265	270		
Ile Pro	Leu Val Thr Phe Val Tyr Val Phe Ala Asn Val Ala Tyr Val				
	275	280	285		
Thr Ala	Met Ser Pro Gln Glu Leu Leu Ala Ser Asn Ala Val Ala Val				
	290	295	300		
Thr Phe	Gly Glu Lys Leu Leu Gly Val Met Ala Trp Ile Met Pro Ile				
	305	310	315	320	
Ser Val	Ala Leu Ser Thr Phe Gly Gly Val Asn Gly Ser Leu Phe Thr				
	325	330	335		
Ser Ser	Arg Leu Phe Phe Ala Gly Ala Arg Glu Gly His Leu Pro Ser				
	340	345	350		
Val Leu	Ala Met Ile His Val Lys Arg Cys Thr Pro Ile Pro Ala Leu				
	355	360	365		
Leu Phe	Thr Cys Ile Ser Thr Leu Leu Met Leu Val Thr Ser Asp Met				
	370	375	380		
Tyr Thr	Leu Ile Asn Tyr Val Gly Phe Ile Asn Tyr Leu Phe Tyr Gly				
	385	390	395	400	
Val Thr	Val Ala Gly Gln Ile Val Leu Arg Trp Lys Lys Pro Asp Ile				
	405	410	415		
Pro Arg	Pro Ile Lys Ile Asn Leu Leu Phe Pro Ile Ile Tyr Leu Leu				
	420	425	430		
Phe Trp	Ala Phe Leu Leu Val Phe Ser Leu Trp Ser Glu Pro Val Val				
	435	440	445		
Cys Gly	Ile Gly Leu Ala Ile Met Leu Thr Gly Val Pro Val Tyr Phe				

450	455	460
Leu Gly Val Tyr Trp Gln His Lys Pro Lys Cys Phe Ser Asp Phe Ile		
465	470	475
Glu Leu Leu Thr Leu Val Ser Gln Lys Met Cys Val Val Val Tyr Pro		480
	485	490
Glu Val Glu Arg Gly Ser Gly Thr Glu Glu Ala Asn Glu Asp Met Glu		495
	500	505
Glu Gln Gln Gln Pro Met Tyr Gln Pro Thr Pro Thr Lys Asp Lys Asp		510
	515	520
Val Ala Gly Gln Pro Gln Pro		525
530	535	

&lt;210&gt; 5801

&lt;211&gt; 2418

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5801

```

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120
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1080

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1200  
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1260  
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2400  
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2418

&lt;210&gt; 5802

&lt;211&gt; 350

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5802

Asp Pro Thr Ser Asp Asp Val Met Asp Ser Phe Leu Glu Lys Phe Gln



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Ser Gln Pro Tyr Arg Gly Gly Phe His Glu Asp Gln Trp Glu Lys Glu
20           25           30
Phe Glu Lys Val Pro Leu Phe Met Ser Arg Ala Pro Ser Glu Ile Asp
35           40           45
Pro Arg Glu Asn Pro Asp Leu Ala Cys Leu Gln Ser Ile Ile Phe Asp
50           55           60
Glu Glu Arg Ser Pro Glu Gln Ala Lys Thr Tyr Lys Asp Glu Gly
65           70           75           80
Asn Asp Tyr Phe Lys Glu Lys Asp Tyr Lys Lys Ala Val Ile Ser Tyr
85           90           95
Thr Glu Gly Leu Lys Lys Lys Cys Ala Asp Pro Asp Leu Asn Ala Val
100          105          110
Leu Tyr Thr Asn Arg Ala Ala Gln Tyr Tyr Leu Gly Asn Phe Arg
115          120          125
Ser Ala Leu Asn Asp Val Thr Ala Ala Arg Lys Leu Lys Pro Cys His
130          135          140
Leu Lys Ala Ile Ile Arg Gly Ala Leu Cys His Leu Glu Leu Lys His
145          150          155          160
Phe Ala Glu Ala Val Asn Trp Cys Asp Glu Gly Leu Gln Ile Asp Ala
165          170          175
Lys Glu Lys Lys Leu Leu Glu Met Arg Ala Lys Ala Asp Lys Leu Lys
180          185          190
Arg Ile Glu Gln Arg Asp Val Arg Lys Ala Asn Leu Lys Glu Lys Lys
195          200          205
Glu Arg Asn Gln Asn Glu Ala Leu Leu Gln Ala Ile Lys Ala Arg Asn
210          215          220
Ile Arg Leu Ser Glu Ala Ala Cys Glu Asp Glu Asp Ser Ala Ser Glu
225          230          235          240
Gly Leu Gly Glu Leu Phe Leu Asp Gly Leu Ser Thr Glu Asn Pro His
245          250          255
Gly Ala Arg Leu Ser Leu Asp Gly Gln Gly Arg Leu Ser Trp Pro Val
260          265          270
Leu Phe Leu Tyr Pro Glu Tyr Ala Gln Ser Asp Phe Ile Ser Ala Phe
275          280          285
His Glu Asp Ser Arg Phe Ile Asp His Leu Met Val Met Phe Gly Glu
290          295          300
Thr Pro Ser Trp Asp Leu Glu Gln Lys Tyr Cys Leu Ile Ile Trp Arg
305          310          315          320
Ser Thr Leu Arg Met Arg Thr Gly Gln Asn Tyr Thr Gly Cys Leu Pro
325          330          335
Arg Ala Pro Cys Tyr Arg Phe Tyr Ser Thr Arg Gly Thr Leu
340          345          350

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&lt;210&gt; 5803

&lt;211&gt; 692

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5803

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60

atcacagttc gctcatccg ttcctttgaa catcgcaatt tcaaacctgt agtgtatcac

120

ggagtgaatt tggaccaaac tgtaaaggaa tttatcgtat ttctaaagca agatgtccct  
 180  
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 692

&lt;210&gt; 5804

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5804

Met	Ala	Pro	Gly	Glu	Val	Thr	Ile	Thr	Val	Arg	Leu	Ile	Arg	Ser	Phe
1				5					10					15	
Glu	His	Arg	Asn	Phe	Lys	Pro	Val	Val	Tyr	His	Gly	Val	Asn	Leu	Asp
			20					25					30		
Gln	Thr	Val	Lys	Glu	Phe	Ile	Val	Phe	Leu	Lys	Gln	Asp	Val	Pro	Leu
			35				40					45			
Arg	Thr	Asn	Leu	Pro	Pro	Pro	Phe	Arg	Asn	Tyr	Lys	Tyr	Asp	Ala	Leu
		50				55					60				
Lys	Ile	Ile	His	Gln	Ala	His	Lys	Ser	Lys	Thr	Asn	Glu	Leu	Val	Leu
				70						75				80	
Ser	Leu	Glu	Asp	Asp	Glu	Arg	Leu	Leu	Lys	Glu	Asp	Ser	Thr	Leu	
			85					90					95		
Lys	Ala	Ala	Gly	Ile	Ala	Ser	Glu	Thr	Glu	Ile	Ala	Phe	Phe	Cys	Glu
			100					105					110		
Glu	Asp	Tyr	Arg	Asn	Tyr	Lys	Ala	Asn	Pro	Ile	Ser	Ser	Trp		
			115					120					125		

&lt;210&gt; 5805

&lt;211&gt; 1112

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5805

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 1112

&lt;210&gt; 5806

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5806

Met	Ser	Ile	Tyr	Phe	Pro	Ile	His	Cys	Pro	Asp	Tyr	Leu	Arg	Ser	Ala
1				5				10					15		
Lys	Met	Thr	Glu	Val	Met	Met	Asn	Thr	Gln	Pro	Met	Glu	Glu	Ile	Gly
		20					25					30			
Leu	Ser	Pro	Arg	Lys	Asp	Gly	Leu	Ser	Tyr	Gln	Ile	Phe	Pro	Asp	Pro
	35					40					45				
Ser	Asp	Phe	Asp	Arg	Cys	Cys	Lys	Leu	Lys	Asp	Arg	Leu	Pro	Ser	Ile
	50				55					60					
Val	Val	Glu	Pro	Thr	Glu	Gly	Glu	Val	Glu	Ser	Gly	Glu	Leu	Arg	Trp
65				70				75					80		
Pro	Pro	Glu	Glu	Phe	Leu	Val	Gln	Glu	Asp	Glu	Gln	Asp	Asn	Cys	Glu
				85				90					95		
Glu	Thr	Ala	Lys	Glu	Asn	Lys	Glu	Gln							

100

105

&lt;210&gt; 5807

&lt;211&gt; 1429

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5807

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1380

4971

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1429

<210> 5808

<211> 261

<212> PRT

<213> Homo sapiens

<400> 5808

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Leu Leu Gly Gly Ile Pro Glu Ser Gly Gly Pro Asp Ala Arg Gln Gly  
35 40 45  
Trp Leu Ala Ala Leu Gln Asp Arg Ser Ile Leu Ala Pro Leu Ala Trp  
50 55 60  
Asp Leu Gly Leu Leu Leu Phe Val Gly Gln His Ser Leu Met Ala  
65 70 75 80  
Ala Glu Arg Val Lys Ala Trp Thr Ser Arg Tyr Phe Gly Val Leu Gln  
85 90 95  
Arg Ser Leu Tyr Val Ala Cys Thr Ala Leu Ala Leu Gln Leu Val Met  
100 105 110  
Arg Tyr Trp Glu Pro Ile Pro Lys Gly Pro Val Leu Trp Glu Ala Arg  
115 120 125  
Ala Glu Pro Trp Ala Thr Trp Val Pro Leu Leu Cys Phe Val Leu His  
130 135 140  
Val Ile Ser Trp Leu Leu Ile Phe Ser Ile Leu Leu Val Phe Asp Tyr  
145 150 155 160  
Ala Glu Leu Met Gly Leu Lys Gln Val Tyr Tyr His Val Leu Gly Leu  
165 170 175  
Gly Glu Pro Leu Ala Leu Lys Ser Pro Arg Ala Leu Arg Leu Phe Ser  
180 185 190  
His Leu Arg His Pro Val Cys Val Glu Leu Leu Thr Val Leu Trp Val  
195 200 205  
Val Pro Thr Leu Gly Thr Asp Arg Leu Leu Leu Ala Phe Leu Leu Thr  
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Leu Tyr Leu Gly Leu Ala His Gly Leu Asp Gln Gln Asp Leu Arg Tyr  
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<210> 5809

<211> 2009

<212> DNA

<213> Homo sapiens

<400> 5809

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 <212> PRT  
 <213> Homo sapiens

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 <212> DNA  
 <213> Homo sapiens

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<210> 5812

<211> 463

<212> PRT

<213> Homo sapiens

<400> 5812

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			20						25					30	
Thr	Pro	Gln	Ala	Ile	Glu	Pro	Gln	Ala	Ile	Val	Gln	Gln	Val	Pro	Ala
			35						40					45	
Pro	Ser	Arg	Met	Gln	Met	Pro	Gln	Gly	Asn	Pro	Leu	Leu	Leu	Ser	His
			50				55							60	
Thr	Leu	Gln	Glu	Leu	Leu	Ala	Arg	Asp	Thr	Val	Gln	Val	Glu	Leu	Ile
			65			70				75				80	
Pro	Glu	Lys	Lys	Gly	Leu	Phe	Leu	Lys	His	Val	Glu	Tyr	Glu	Val	Ser
			85						90					95	
Ser	Gln	Arg	Phe	Lys	Ser	Ser	Val	Tyr	Arg	Arg	Tyr	Asn	Asp	Phe	Val
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Val	Phe	Gln	Glu	Met	Leu	Leu	His	Lys	Phe	Pro	Tyr	Arg	Met	Val	Pro



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Ala Leu Pro Pro Lys Arg Met Leu Gly Ala Asp Arg Glu Phe Ile Glu
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Pro Leu Phe Ser Glu Asp Val Val Leu Lys Leu Phe Leu Ser Phe Ser
      165      170      175
Gly Ser Asp Val Gln Asn Lys Leu Lys Glu Ser Ala Gln Cys Val Gly
      180      185      190
Asp Glu Phe Leu Asn Cys Lys Leu Ala Thr Arg Ala Lys Asp Phe Leu
      195      200      205
Pro Ala Asp Ile Gln Ala Gln Phe Ala Ile Ser Arg Glu Leu Ile Arg
      210      215      220
Asn Ile Tyr Asn Ser Phe His Lys Leu Arg Asp Arg Ala Glu Arg Ile
      225      230      235      240
Ala Ser Arg Ala Ile Asp Asn Ala Ala Asp Leu Leu Ile Phe Gly Lys
      245      250      255
Glu Leu Ser Ala Ile Gly Ser Asp Thr Thr Pro Leu Pro Ser Trp Ala
      260      265      270
Ala Leu Asn Ser Ser Thr Trp Gly Ser Leu Lys Gln Ala Leu Lys Gly
      275      280      285
Leu Ser Val Glu Phe Ala Leu Leu Ala Asp Lys Ala Ala Gln Gln Gly
      290      295      300
Lys Gln Glu Glu Asn Asp Val Val Glu Lys Leu Asn Leu Phe Leu Asp
      305      310      315      320
Leu Leu Gln Ser Tyr Lys Asp Leu Cys Glu Arg His Glu Lys Gly Val
      325      330      335
Leu His Lys His Gln Arg Ala Leu His Lys Tyr Ser Leu Met Lys Arg
      340      345      350
Gln Met Met Ser Ala Thr Ala Gln Asn Arg Glu Pro Glu Ser Val Glu
      355      360      365
Gln Leu Glu Ser Arg Ile Val Glu Gln Glu Asn Ala Ile Gln Thr Met
      370      375      380
Glu Leu Arg Asn Tyr Phe Ser Leu Tyr Cys Leu His Gln Glu Thr Gln
      385      390      395      400
Leu Ile His Val Tyr Leu Pro Leu Thr Ser His Ile Leu Arg Ala Phe
      405      410      415
Val Asn Ser Gln Ile Gln Gly His Lys Glu Met Ser Lys Val Trp Asn
      420      425      430
Asp Leu Arg Pro Lys Leu Ser Cys Leu Phe Ala Gly Pro His Ser Thr
      435      440      445
Leu Thr Pro Pro Cys Ser Pro Pro Glu Asp Gly Leu Cys Pro His
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&lt;210&gt; 5813

&lt;211&gt; 2991

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5813

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120

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&lt;210&gt; 5814

&lt;211&gt; 149

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5814

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Tyr	His	Pro	Asp	Lys	His	Arg	Asp	Pro	Glu	Leu	Lys	Ser	Gln	Ala	Glu
			20					25					30		
Arg	Leu	Phe	Asn	Leu	Val	His	Gln	Ala	Tyr	Glu	Val	Leu	Ser	Asp	Pro

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Glu Gly Trp Glu Val Val Glu Arg Arg Arg Thr Pro Ala Glu Ile Arg
  65          70          75          80
Glu Glu Phe Glu Arg Leu Gln Arg Glu Arg Glu Arg Arg Leu Gln
      85          90          95
Gln Arg Thr Asn Pro Lys Leu Cys Asp Asn Lys Leu Cys Ser Ala Val
      100          105          110
Phe Ile Pro Trp Asn Pro Thr Arg Pro Asp His Cys Pro Ser Ser Glu
      115          120          125
Pro Arg Gln Glu His Arg Gly Leu Pro Ala Val Ala Met Gly Tyr Pro
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Val Ser His Glu His
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<210> 5815  
 <211> 590  
 <212> DNA  
 <213> Homo sapiens

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<210> 5816  
 <211> 196  
 <212> PRT  
 <213> Homo sapiens

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Lys Glu Arg Arg Lys Glu Ile Asp Leu Leu Leu Gly Gln Thr Asp Asp

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```

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Thr Arg Tyr His Val Leu Val Asn Leu Gly Leu Pro Ser Leu Phe Ser
  50          55          60
Phe Gly Leu Val Asp Asp Ala His His Leu Ile Asn Ala Leu Arg Gln
  65          70          75          80
Gln Ser Ile Thr Leu His Leu Val Asp Val Met Pro Val Leu Ile Thr
      85          90          95
Leu Ser Ser Leu Gly Ser Ser Phe Leu Leu His Leu Arg Phe Gly Pro
  100          105          110
Leu Ser Leu Val Ser His Thr Gly Ala Leu Gln Leu Pro Asn Lys Gly
  115          120          125
Gln His Leu Ser Cys Gly Phe Ile Pro Ala Gly Pro Val Asn Glu Arg
  130          135          140
Thr Val Ser Leu Glu His Lys Ile Arg Val Arg Leu Val Leu Val Leu
  145          150          155          160
Gln Thr Thr Gly Gly Tyr Ile Arg His Gly Arg Gly Cys Ser Glu Ala
      165          170          175
Ser Asp His His Ala Ser Ile Pro Gln Ala Ala Asn Gly Arg Arg Ser
      180          185          190
Leu Leu Leu Ala
      195

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&lt;210&gt; 5817

&lt;211&gt; 648

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5817

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648

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&lt;210&gt; 5818

&lt;211&gt; 191

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5818

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 20           25           30
Met Asn Asn Gly Ser Pro Thr Ala Leu Ser Gly Ser Lys Thr Asn Ser
 35           40           45
Pro Lys Asn Ser Val His Lys Leu Asp Val Ser Arg Ser Pro Pro Leu
 50           55           60
Met Val Lys Lys Asn Pro Ala Phe Asn Lys Gly Ser Gly Ile Val Thr
 65           70           75           80
Asn Gly Ser Phe Ser Ser Ser Asn Ala Glu Gly Leu Glu Lys Thr Gln
 85           90           95
Thr Thr Pro Asn Gly Ser Leu Gln Ala Arg Arg Ser Ser Ser Leu Lys
100          105          110
Val Ser Gly Thr Lys Met Gly Thr His Ser Val Gln Asn Gly Thr Val
115          120          125
Arg Met Gly Ile Leu Asn Ser Asp Thr Leu Gly Asn Pro Thr Asn Val
130          135          140
Arg Asn Met Ser Trp Leu Pro Asn Gly Tyr Val Thr Leu Arg Asp Asn
145          150          155          160
Lys Gln Lys Glu Gln Ala Gly Glu Leu Gly Gln His Asn Arg Leu Ser
165          170          175
Pro Met Ile Met Ser Ile Thr Val Leu His Asp Glu Leu Asp Asp
180          185          190

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&lt;210&gt; 5819

&lt;211&gt; 1652

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5819

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<210> 5820

<211> 274

<212> PRT

<213> Homo sapiens

<400> 5820

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Pro	Lys	Asn	Asp	Ala	Asp	Asp	Glu	Ser	Glu	Thr	Pro	Glu	Glu	Leu	Glu
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Thr	Met	Ala	Ala	Ile	Asn	Ser	Ile	Tyr	Ser	Asn	Pro	Asp	Ala	Asn	Ile
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Leu Ile His Gln His Glu Lys Val Ile Tyr Leu Asp Asp Val Ile
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Val Gln Gly Asp Ile Gln Glu Leu Tyr Asp Thr Thr Leu Ala Leu Gly
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His Ala Ala Ala Phe Ser Asp Asp Cys Asp Leu Pro Ser Ala Gln Asp
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Tyr Arg Lys Lys Ala Ile Lys Asp Leu Gly Ile Ser Pro Ser Thr Cys
      210      215      220
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Gln Arg Ile Thr Lys Gln Leu Glu Lys Trp Met Gln Lys Asn Val Glu
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<210> 5821  
 <211> 3292  
 <212> DNA  
 <213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 5822

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Pro Leu Leu Gly Pro Pro Val Gly Glu Pro Arg Leu Leu Ala Ser Ser
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Pro Ala Leu Pro Ser Ser Gly Ala Gln Ala Arg Leu Thr Arg Ala Pro
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Gly Pro Pro His Ser Ala His Ala Leu Pro Arg Glu Ser Cys Thr Ala
      180      185      190
His Ala Ala Ser Gln Ala Ala Thr Gln Arg Lys Pro Gly Thr Lys Leu
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Leu Leu Pro Arg Ala Ala Ser Val Arg Gly Arg Ser Ile Pro Gly Ala
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      245      250      255
Ala Pro Gly Ala Val Asn Val Pro Ala Ala Gly Ser His Leu Gly Gln
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Pro Leu Cys Val Pro Ala Arg Arg Ser Ser Glu Pro Arg Lys Asn

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 625                      630                      635                      640  
 Pro Leu Ile Asp Phe Cys Asp Thr Pro Glu Ala His Val Ala Val Gly  
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 Ser Glu Ser Arg Pro Leu Ile Asp Leu Met Thr Asn Thr Pro Asp Met  
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                     675                      680                      685  
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&lt;210&gt; 5823

&lt;211&gt; 2585

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5823

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 Pro Glu Asn Pro Ala Ala Leu Val Val Val Leu Met Ala Val Leu Leu  
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 Leu Leu Ala Leu Leu Thr Ala Ala Leu Ile Leu Tyr Arg Arg Arg Gln  
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 Ser Ile Glu Arg Gly Ala Phe Glu Gly Ala Arg Tyr Ser Arg Ser Ser  
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&lt;210&gt; 5831

&lt;211&gt; 2216

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5831

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 420



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<210> 5832  
 <211> 322  
 <212> PRT  
 <213> Homo sapiens

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 His Lys Glu Phe Gln Gln Asn Asn Trp His Ala Val Gly Cys Gly Phe  
 35 40 45  
 Arg Arg Ala Arg Pro Lys Phe Glu Gln Val Asn Leu Leu Asp Ser Asn  
 50 55 60  
 Ala Val His His Ile Ile His Asp Phe Gln Pro His Val Ile Val His  
 65 70 75 80  
 Cys Ala Ala Glu Arg Arg Pro Asp Val Val Glu Asn Gln Pro Asp Ala  
 85 90 95  
 Ala Ser Gln Leu Asn Val Asp Ala Ser Gly Asn Leu Ala Lys Glu Ala  
 100 105 110  
 Ala Ala Val Gly Ala Phe Leu Ile Tyr Ile Ser Ser Asp Tyr Val Phe  
 115 120 125  
 Asp Gly Thr Asn Pro Pro Tyr Arg Glu Glu Asp Ile Pro Ala Pro Leu  
 130 135 140  
 Asn Leu Tyr Gly Lys Thr Lys Leu Asp Gly Glu Lys Ala Val Leu Glu  
 145 150 155 160  
 Asn Asn Leu Gly Ala Ala Val Leu Arg Ile Pro Ile Leu Tyr Gly Glu  
 165 170 175  
 Val Glu Lys Leu Glu Glu Ser Ala Val Thr Val Met Phe Asp Lys Val  
 180 185 190  
 Gln Phe Ser Asn Lys Ser Ala Asn Met Asp His Trp Gln Gln Arg Phe  
 195 200 205  
 Pro Thr His Val Lys Asp Val Ala Thr Val Cys Arg Gln Leu Ala Glu  
 210 215 220  
 Lys Arg Met Leu Asp Pro Ser Ile Lys Gly Thr Phe His Trp Ser Gly  
 225 230 235 240  
 Asn Glu Gln Met Thr Lys Tyr Glu Met Ala Cys Ala Ile Ala Asp Ala  
 245 250 255  
 Phe Asn Leu Pro Ser Ser His Leu Arg Pro Ile Thr Asp Ser Pro Val  
 260 265 270  
 Leu Gly Ala Gln Arg Pro Arg Asn Ala Gln Leu Asp Cys Ser Lys Leu  
 275 280 285  
 Glu Thr Leu Gly Ile Gly Gln Arg Thr Pro Phe Arg Ile Gly Ile Lys  
 290 295 300  
 Glu Ser Leu Trp Pro Phe Leu Ile Asp Lys Arg Trp Arg Gln Thr Val  
 305 310 315 320  
 Phe His

<210> 5833  
 <211> 805  
 <212> DNA  
 <213> Homo sapiens

<400> 5833  
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 240  
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 300  
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 360  
 gaatatctag aggaggtacc tccaggaaat gtgctaggaa taggaggcct tcaagatttt  
 420  
 gtgctgaaat ctgcaacact gtgtagcctg ccacccctgcc caccatttat accactcaac  
 480  
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 540  
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<210> 5834  
 <211> 268  
 <212> PRT  
 <213> Homo sapiens

<400> 5834  
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 Gly Ser Ala Ile Glu Thr Cys Pro Lys Gly Asp Glu Pro Arg Gly Asp  
 20 25 30  
 Glu Gln Gln Val Glu Ser Met Thr Pro Lys Pro Val Leu Gln Glu Glu  
 35 40 45  
 Asn Asn Gln Glu Ser Phe Ile Ala Phe Ala Arg Val Phe Ser Gly Val  
 50 55 60  
 Ala Arg Arg Gly Lys Lys Ile Phe Val Leu Gly Pro Lys Tyr Ser Pro  
 65 70 75 80  
 Leu Glu Phe Leu Arg Arg Val Pro Leu Gly Phe Ser Ala Pro Pro Asp

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      85              90              95
Gly Leu Pro Gln Val Pro His Met Ala Tyr Cys Ala Leu Glu Asn Leu
      100              105              110
Tyr Leu Leu Met Gly Arg Glu Leu Glu Tyr Leu Glu Glu Val Pro Pro
      115              120              125
Gly Asn Val Leu Gly Ile Gly Gly Leu Gln Asp Phe Val Leu Lys Ser
      130              135              140
Ala Thr Leu Cys Ser Leu Pro Ser Cys Pro Pro Phe Ile Pro Leu Asn
      145              150              155              160
Phe Glu Ala Thr Pro Ile Val Arg Val Ala Val Glu Pro Lys His Pro
      165              170              175
Ser Glu Met Pro Gln Leu Val Lys Gly Met Lys Leu Leu Asn Gln Ala
      180              185              190
Asp Pro Cys Val Gln Ile Leu Ile Gln Glu Thr Gly Glu His Val Leu
      195              200              205
Val Thr Ala Gly Glu Val His Leu Gln Arg Cys Leu Asp Asp Leu Lys
      210              215              220
Glu Arg Phe Ala Lys Ile His Ile Ser Val Ser Glu Pro Ile Ile Pro
      225              230              235              240
Phe Arg Glu Thr Ile Thr Lys Pro Pro Lys Val Asp Met Val Asn Glu
      245              250              255
Glu Ile Gly Lys Gln Gln Lys Val Ala Val Ile His
      260              265

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<210> 5835  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

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<400> 5835
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gcactgcata agcaagttct tatgggccca tataatccag acacttgctc tgaggttgga
180
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240
aaagaggatg ccatggtgga gtttgtcaag ctcttaataa ggtgttgcca tctcttttca
300
acatatgttg cgccccacaa aatagagaag gaagagcaag acaaaaaaag gaaggaggaa
360
gaggagcgaa ggcggcgtga agaggaagaa agagaacgtc tgcaaaagga ggaagagaaa
420

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<210> 5836  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

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<400> 5836
Xaa Leu Glu Gln Arg Trp Gly Phe Gly Leu Glu Glu Leu Tyr Gly Leu
1      5      10      15
Ala Leu Arg Phe Phe Lys Glu Lys Asp Gly Lys Ala Phe His Pro Thr

```

```

      20      25      30
Tyr Glu Glu Lys Leu Lys Leu Val Ala Leu His Lys Gln Val Leu Met
      35      40      45
Gly Pro Tyr Asn Pro Asp Thr Cys Pro Glu Val Gly Phe Phe Asp Val
      50      55      60
Leu Gly Asn Asp Arg Arg Glu Trp Ala Ala Leu Gly Asn Met Ser
65      70      75      80
Lys Glu Asp Ala Met Val Glu Phe Val Lys Leu Leu Asn Arg Cys Cys
      85      90      95
His Leu Phe Ser Thr Tyr Val Ala Ser His Lys Ile Glu Lys Glu Glu
      100      105      110
Gln Asp Lys Lys Arg Lys Glu Glu Glu Arg Arg Arg Arg Glu Glu
      115      120      125
Glu Glu Arg Glu Arg Leu Gln Lys Glu Glu Glu Lys
      130      135      140

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<210> 5837  
 <211> 582  
 <212> DNA  
 <213> Homo sapiens

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<400> 5837
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120
tgggccaagg gggacatcca gggggcaggg gccgcctccc gccgtgcctt cctgctgggg
180
gtcctcgccg tcgggctggg cgtgtgcacg tatgcggctg ccctggtgac cctggccgcc
240
taccttgccct ccgagacccc gccctagttg cccctacagc cctcactgtg aaccctgagg
300
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420
accgtcttc gggcggcagc aacctgagat taaacaccag acacccttg cctgggctca
480
cgaggaaggg gctgcagttc tccaaggatt ccgcctgct cccagatccc cgggagtcgt
540
aggaacccgt tcctggacgc tgacgtcggc ttccagggat cc
582

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<210> 5838  
 <211> 88  
 <212> PRT  
 <213> Homo sapiens

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<400> 5838
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1      5      10      15
Phe Ser Met Leu Cys Cys Phe Trp Pro Val Gly Ile Ala Ala Phe Cys
      20      25      30
Leu Ala Gln Lys Thr Asn Lys Ala Trp Ala Lys Gly Asp Ile Gln Gly

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<210> 5839
<211> 1895
<212> DNA
<213> Homo sapiens
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<400> 5839  
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 120  
 cattcgaatg catcccaacc agtgctcagc tgcgtaacga catggagaga ggcagggggg  
 180  
 aatagaaagc aaatttaaaa acaccaacac ccaaacacac aagactgcac acaagaaaaa  
 240  
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 300  
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 360  
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 420  
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 1800  
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 1860  
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 1895

<210> 5840  
 <211> 138  
 <212> PRT  
 <213> Homo sapiens

<400> 5840  
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 20 25 30  
 Leu Met Val His Gly Trp Cys Pro Val Ile Phe Ser Trp Ala Val Ala  
 35 40 45  
 Pro Arg Gly Ser Gly Phe Pro Ala Gln Gly Ile Phe Asp Pro Cys Gln  
 50 55 60  
 Arg Arg Glu Arg Glu Leu Ser Trp Phe Pro Phe His Leu Phe Ser Gly  
 65 70 75 80  
 Cys Phe Lys Ala Asn Ile Pro Val Pro Asn Val Leu Cys Gly Leu Asn  
 85 90 95  
 Pro Gly Arg Gly Gln Gly His Ile Gln Val Gly Leu Ala Ser Ser Thr  
 100 105 110  
 Thr Phe Trp Pro Gln Gln Arg Met Gly Phe His Gln Ser Leu Ser Thr  
 115 120 125  
 Ser Arg Phe Pro Lys Glu Ser Pro Arg Ser  
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<210> 5841  
 <211> 3411  
 <212> DNA  
 <213> Homo sapiens

<400> 5841  
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180  
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240  
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420  
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900  
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960  
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1020  
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1080  
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1140  
ctggataaag caagagcaaa aaataaagat gttctacagg ccgaaacttc ccaacaatta  
1200  
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1560



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1980  
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2280  
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2880  
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2940  
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1980  
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2160  
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 ag  
 2762

<210> 5846  
 <211> 257  
 <212> PRT  
 <213> Homo sapiens

<400> 5846  
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 Gln Gln Glu Lys Glu Trp Leu Leu Ala Glu Glu Thr Ala Ala Thr Ala  
 35 40 45  
 Ser Ala Ile Glu Ala Met Lys Lys Ala Tyr Gln Glu Glu Leu Ser Arg  
 50 55 60  
 Glu Leu Ser Lys Thr Arg Ser Leu Gln Gln Gly Pro Asp Gly Leu Arg  
 65 70 75 80  
 Lys Gln His Gln Ser Asp Val Glu Ala Leu Lys Arg Glu Leu Gln Val  
 85 90 95  
 Leu Ser Glu Gln Tyr Ser Gln Lys Cys Leu Glu Ile Gly Ala Leu Met  
 100 105 110  
 Arg Gln Ala Glu Glu Arg Glu His Thr Leu Arg Arg Cys Gln Gln Glu  
 115 120 125  
 Gly Gln Glu Leu Leu Arg His Asn Gln Glu Leu His Gly Arg Leu Ser  
 130 135 140  
 Glu Glu Ile Asp Gln Leu Arg Gly Phe Ile Ala Ser Gln Gly Met Gly  
 145 150 155 160  
 Asn Gly Cys Gly Arg Ser Asn Glu Arg Ser Ser Cys Glu Leu Glu Val  
 165 170 175  
 Leu Leu Arg Val Lys Glu Asn Glu Leu Gln Tyr Leu Lys Lys Glu Val  
 180 185 190  
 Gln Cys Leu Arg Asp Glu Leu Gln Met Met Gln Lys Asp Lys Arg Phe  
 195 200 205  
 Thr Ser Gly Lys Tyr Gln Asp Val Tyr Val Glu Leu Ser His Ile Lys

210		215		220
Thr Arg Ser Glu Arg	Glu Ile Glu Gln Leu Lys	Glu His Leu Arg Leu		
225	230	235	240	
Ala Met Ala Ala Leu	Gln Glu Lys Glu Ser Met	Arg Asn Ser Leu Ala		
	245	250	255	

Glu

&lt;210&gt; 5847

&lt;211&gt; 1021

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5847

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1020
c
1021

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&lt;210&gt; 5848

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5848

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 Asn Met Ala Asn Leu Phe Ile Arg Lys Met Val Asn Pro Leu Leu Tyr  
 20 25 30  
 Leu Ser Arg His Thr Val Lys Pro Arg Ala Leu Ser Thr Phe Leu Phe  
 35 40 45  
 Gly Ser Ile Arg Gly Ala Ala Pro Val Ala Val Glu Pro Gly Ala Ala  
 50 55 60  
 Val Arg Ser Leu Leu Ser Pro Gly Leu Leu Pro His Leu Leu Pro Ala  
 65 70 75 80  
 Leu Gly Phe Lys Asn Lys Thr Val Leu Lys Lys Arg Cys Lys Asp Cys  
 85 90 95  
 Tyr Leu Val Lys Arg Arg Gly Arg Trp Tyr Val Tyr Cys Lys Thr His  
 100 105 110  
 Pro Arg His Lys Gln Arg Gln Met  
 115 120

&lt;210&gt; 5849

&lt;211&gt; 3174

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5849

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 ggaatacaca gcgttttaca agttagctac ctgtacagaa tggattacat atgcaaaaat  
 120  
 aaaaaatctca agaccacagg acagcgtgag cccaccccc ctcccccaat gacccagca  
 180  
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 240  
 aagccaccgg ccatggaaat tagtacagaa cccccccaca cacactcaga cacaggatac  
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 720  
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gccccaaawyy mmttggcttt ttaaaaaata atcacaattt gtgggttaaa aaccaatttg  
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caaccaggca tgagccacaa tcagaaccac cccagcggga gagcggagt ccagacaggg  
960  
nattgcagcc ccattcttgt tgttccctta accctctagg gtccttaacc cgatcagtcc  
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 3174

&lt;210&gt; 5850

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5850

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His	Ser	Val	Pro	Ala	Tyr	Pro	Trp	Asp	Trp	Gly	His	Leu	Ile	Arg	Phe
		20						25					30		
Cys	Thr	Gln	Thr	Gly	His	Ala	Gln	Pro	Cys	Pro	Ser	Ala	Pro	Ser	Thr
		35					40					45			
Gly	Pro	Ile	His	Ile	Ala	Glu	Gly	Gly	Arg	Gly	Arg	Pro	Pro	Pro	Gly
	50					55				60					
Ser	Ala	Ser	Asn	Pro	Gln	Pro	Pro	Gly	Ser	Pro	His	Cys	Pro	Ser	Ala
	65				70				75					80	
Gly	Leu	Ser	Pro	Val	Pro	Gly	Val	Gly	Gly	Arg	Gln	Cys	Pro	Gly	Thr
			85					90						95	
Val	Pro	Arg	Val	Arg	Arg	Pro	Gly	Leu	Ala	Gly	His	Pro	Val	Thr	His
			100					105					110		
Arg	Ile	Asn	Arg	Lys	Thr	Ala	Ser	Pro	Pro	Asn	Leu	Cys	Pro	Arg	His
		115				120					125				
Asn	Met	Ser	Arg	Ser	Glu	Ser	Cys	Thr	Pro	Arg	Ser	Arg	Ala	Pro	Leu
		130				135					140				
Gln	Arg	Thr	Leu	Thr	Pro	Pro	Arg	Gly	Ala						
					145										

&lt;210&gt; 5851

&lt;211&gt; 488

<212> DNA  
<213> Homo sapiens

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 120  
 cttggttttg tctcaaaggc aaaaggaaaag gacgaggaag gggccaggcc tcccgccagg  
 180  
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 360  
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 488

<210> 5852  
 <211> 82  
 <212> PRT  
 <213> Homo sapiens

<400> 5852  
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 Asn Lys Thr Ser Glu Asp Val Thr Met Ala Ala Ser Pro Val Thr  
 20 25 30  
 Leu Thr Lys Gly Thr Ser Ala Ala His Leu Asn Ser Met Glu Val Thr  
 35 40 45  
 Thr Glu Asp Thr Ser Arg Thr Asp Ala Tyr Glu Ser Tyr Lys Lys Lys  
 50 55 60  
 Asp Tyr Thr Gln Val Asp Tyr Leu Ile Asn Gly Met Tyr Ala Asp Ser  
 65 70 75 80  
 Glu Met

<210> 5853  
 <211> 487  
 <212> DNA  
 <213> Homo sapiens

<400> 5853  
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 120  
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 180



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 240  
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 300  
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 360  
 agctgacga gacctcgcc ctggacacca acacaggctc ttttcttcac accctggagg  
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 480  
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 487

<210> 5854

<211> 68

<212> PRT

<213> Homo sapiens

<400> 5854

Arg	Glu	Trp	Lys	Val	Gln	Arg	Pro	Glu	Leu	Arg	Glu	Ala	Ser	Gly	Asp
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Tyr	Arg	Arg	Ser	Gln	Glu	Gly	Gly	Pro	Ala	Arg	Pro	Ala	Ala	Pro	Asp
			20					25					30		
Thr	Pro	Ser	Gly	Arg	Ser	Gly	Pro	Ala	Ala	Pro	Trp	Arg	Thr	Pro	Ala
			35				40					45			
Arg	Thr	Pro	Pro	Arg	Leu	Leu	Pro	Thr	Leu	Cys	Pro	Val	Thr	Pro	Val
			50			55					60				
Ser	Trp	Pro	Leu												
65															

<210> 5855

<211> 362

<212> DNA

<213> Homo sapiens

<400> 5855

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 120  
 tcctcccgac cctcccgag gcacctgctg ggggctgtgg ggccaaagc gggagggagt  
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 240  
 ggccggggcc catccggtgc tcagtgcgc ggggctcctg gtccttggcc tccgtgcagc  
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 362

<210> 5856

<211> 113

<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5856

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Val Thr Ala Pro Leu Cys Ser Ala Asp Pro Leu Leu Ala Val Pro Pro
 20           25           30
Ser Pro Pro Asp Pro Pro Ala Gly Thr Cys Trp Gly Leu Trp Gly Pro
 35           40           45
Lys Arg Glu Gly Val Asn Glu Val Val Ala Glu Val Leu Leu Ala Ala
 50           55           60
His Glu Gly Val Gly Asp Gln Gly Glu Ala Gly Ala His Pro Val Leu
 65           70           75           80
Ser Asp Ala Gly Leu Leu Val Leu Gly Leu Arg Ala Ala Leu Gly Glu
 85           90           95
His Gln Ala His Leu Gly Ser Ala Leu Asn Glu His Gln Arg Val Leu
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Ala

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&lt;210&gt; 5857

&lt;211&gt; 1751

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5857

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780
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840

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 1200  
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<210> 5858

<211> 434

<212> PRT

<213> Homo sapiens

<400> 5858

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 35 40 45  
 Ile Leu Ala Arg Gly Gly Ser Lys Gly Ile Pro Leu Lys Asn Ile Lys  
 50 55 60  
 His Leu Ala Gly Val Pro Leu Ile Gly Trp Val Leu Arg Ala Ala Leu  
 65 70 75 80  
 Asp Ser Gly Ala Phe Gln Ser Val Trp Val Ser Thr Asp His Asp Glu  
 85 90 95  
 Ile Glu Asn Val Ala Lys Gln Phe Gly Ala Gln Val His Arg Arg Ser  
 100 105 110  
 Ser Glu Val Ser Lys Asp Ser Ser Thr Ser Leu Asp Ala Ile Ile Glu

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      115      120      125
Phe Leu Asn Tyr His Asn Glu Val Asp Ile Val Gly Asn Ile Gln Ala
 130      135      140
Thr Ser Pro Cys Leu His Pro Thr Asp Leu Gln Lys Val Ala Glu Met
 145      150      155      160
Ile Arg Glu Glu Gly Tyr Asp Ser Val Phe Ser Val Val Arg Arg His
      165      170      175
Gln Phe Arg Trp Ser Glu Ile Gln Lys Gly Val Arg Glu Val Thr Glu
      180      185      190
Pro Leu Asn Leu Asn Pro Ala Lys Arg Pro Arg Arg Gln Asp Trp Asp
      195      200      205
Gly Glu Leu Tyr Glu Asn Gly Ser Phe Tyr Phe Ala Lys Arg His Leu
      210      215      220
Ile Glu Met Gly Tyr Leu Gln Gly Gly Lys Met Ala Tyr Tyr Glu Met
      225      230      235      240
Arg Ala Glu His Ser Val Asp Ile Asp Val Asp Ile Asp Trp Pro Ile
      245      250      255
Ala Glu Gln Arg Val Leu Arg Tyr Gly Tyr Phe Gly Lys Glu Lys Leu
      260      265      270
Lys Glu Ile Lys Leu Leu Val Cys Asn Ile Asp Gly Cys Leu Thr Asn
      275      280      285
Gly His Ile Tyr Val Ser Gly Asp Gln Lys Glu Ile Ile Ser Tyr Asp
      290      295      300
Val Lys Asp Ala Ile Gly Ile Ser Leu Leu Lys Lys Ser Gly Ile Glu
      305      310      315      320
Val Arg Leu Ile Ser Glu Arg Ala Cys Ser Lys Gln Thr Leu Ser Ser
      325      330      335
Leu Lys Leu Asp Cys Lys Met Glu Val Ser Val Ser Asp Lys Leu Ala
      340      345      350
Val Val Asp Glu Trp Arg Lys Glu Met Gly Leu Cys Trp Lys Glu Val
      355      360      365
Ala Tyr Leu Gly Asn Glu Val Ser Asp Glu Glu Cys Leu Lys Arg Val
      370      375      380
Gly Leu Ser Gly Ala Pro Ala Asp Ala Cys Ser Thr Ala Gln Lys Ala
      385      390      395      400
Val Gly Tyr Ile Cys Lys Cys Asn Gly Gly Arg Gly Ala Ile Arg Glu
      405      410      415
Phe Ala Glu His Ile Cys Leu Leu Met Glu Lys Val Asn Asn Ser Cys
      420      425      430
Gln Lys

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&lt;210&gt; 5859

&lt;211&gt; 2267

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5859

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300  
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<210> 5860  
 <211> 96  
 <212> PRT  
 <213> Homo sapiens

<400> 5860  
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 35 40 45  
 Gln Met Gly Leu Gly Arg Cys Arg Phe Cys Phe Ser Pro Trp Leu Pro  
 50 55 60  
 Val Arg Pro Gln Pro Ser Gly Cys Asp Ile Ile Glu Ser Ala Val Ser  
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<210> 5861  
 <211> 1951  
 <212> DNA  
 <213> Homo sapiens

<400> 5861  
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 300  
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 360

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720  
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1860  
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1951

<210> 5862  
 <211> 514  
 <212> PRT  
 <213> Homo sapiens

<400> 5862  
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 Pro Asp Leu Lys Val Ile Tyr Ile Leu Val Arg Pro Lys Ala Gly Gln  
 35 40 45  
 Thr Leu Gln Gln Arg Val Phe Gln Ile Leu Asp Ser Lys Leu Phe Glu  
 50 55 60  
 Lys Val Lys Glu Val Cys Pro Asn Val His Glu Lys Ile Arg Ala Ile  
 65 70 75 80  
 Tyr Ala Asp Leu Asn Gln Asn Asp Phe Ala Ile Ser Lys Glu Asp Met  
 85 90 95  
 Gln Glu Leu Leu Ser Cys Thr Asn Ile Ile Phe His Cys Ala Ala Thr  
 100 105 110  
 Val Arg Phe Asp Asp Thr Leu Arg His Ala Val Gln Leu Asn Val Thr  
 115 120 125  
 Ala Thr Arg Gln Leu Leu Leu Met Ala Ser Gln Met Pro Lys Leu Glu  
 130 135 140  
 Ala Phe Ile His Ile Ser Thr Ala Tyr Ser Asn Cys Asn Leu Lys His  
 145 150 155 160  
 Ile Asp Glu Val Ile Tyr Pro Cys Pro Val Glu Pro Lys Lys Ile  
 165 170 175  
 Ile Asp Ser Leu Glu Trp Leu Asp Asp Ala Ile Ile Asp Glu Ile Thr  
 180 185 190  
 Pro Lys Leu Ile Arg Asp Trp Pro Asn Ile Tyr Thr Tyr Thr Lys Ala  
 195 200 205  
 Leu Gly Glu Met Val Val Gln Gln Glu Ser Arg Asn Leu Asn Ile Ala  
 210 215 220  
 Ile Ile Arg Pro Ser Ile Val Gly Ala Thr Trp Gln Glu Pro Phe Pro  
 225 230 235 240  
 Gly Trp Val Asp Asn Ile Asn Gly Pro Asn Gly Ile Ile Ala Thr  
 245 250 255  
 Gly Lys Gly Phe Leu Arg Ala Ile Lys Ala Thr Pro Met Ala Val Ala  
 260 265 270  
 Asp Val Ile Pro Val Asp Thr Val Val Asn Leu Met Leu Ala Val Gly  
 275 280 285  
 Trp Tyr Thr Ala Val His Arg Pro Lys Ser Thr Leu Val Tyr His Ile  
 290 295 300  
 Thr Ser Gly Asn Met Asn Pro Cys Asn Trp His Lys Met Gly Val Gln  
 305 310 315 320  
 Val Leu Ala Thr Phe Glu Lys Ile Pro Phe Glu Arg Pro Phe Arg Arg  
 325 330 335  
 Pro Asn Ala Asn Phe Thr Ser Asn Ser Phe Thr Ser Gln Tyr Trp Asn  
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 Ala Val Ser His Arg Ala Pro Ala Ile Ile Tyr Asp Cys Tyr Leu Arg  
 355 360 365  
 Leu Thr Gly Arg Lys Pro Arg Met Thr Lys Leu Met Asn Arg Leu Leu



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      370          375          380
Arg Thr Val Ser Met Leu Glu Tyr Phe Ile Asn Arg Ser Trp Glu Trp
385          390          395          400
Ser Thr Tyr Asn Thr Glu Met Leu Met Ser Glu Leu Ser Pro Glu Asp
      405          410          415
Gln Arg Val Phe Asn Phe Asp Val Arg Gln Leu Asn Trp Leu Glu Tyr
      420          425          430
Ile Glu Asn Tyr Val Leu Gly Val Lys Lys Tyr Leu Leu Lys Glu Asp
      435          440          445
Met Ala Gly Ile Pro Lys Ala Lys Gln Arg Leu Lys Arg Leu Arg Asn
      450          455          460
Ile His Tyr Leu Phe Asn Thr Ala Leu Phe Leu Ile Ala Trp Arg Leu
465          470          475          480
Leu Ile Ala Arg Ser Gln Met Ala Arg Asn Val Trp Phe Phe Ile Val
      485          490          495
Ser Phe Cys Tyr Lys Phe Leu Ser Tyr Phe Arg Ala Ser Ser Thr Leu
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Lys Val

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<210> 5863  
 <211> 438  
 <212> DNA  
 <213> Homo sapiens

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<400> 5863
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300
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438

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<210> 5864  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

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<400> 5864
Met Gly Glu Lys Asn Lys Gln Leu Gln Ile Arg His Cys Leu Ser Pro
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Asp Cys Ser Leu Pro Val Gly Gln Thr His Ser Asn Thr Lys Leu Phe
20     25     30
Cys Gln Tyr Leu Ser Tyr Val Pro Phe Met Ala Glu Tyr Gln Ser Lys

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      35          40          45
Gln Pro Leu Glu Gln Gly Arg Thr Ser Val Phe Thr Leu Gly Ser Pro
      50          55          60
Gly Tyr Gln Asn Pro Ala Pro Phe Ser Ile Asn Gln Ser Gln Thr Val
      65          70          75          80
Asn Val Lys Thr Gly Thr Ser Cys Leu Glu Thr Gln Ile Leu Phe Gln
      85          90          95
Glu Glu Tyr Leu Arg Ile Phe Leu
      100

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&lt;210&gt; 5865

&lt;211&gt; 1229

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5865

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aacaacccag gcatagtctt aacctttgtg cttcccacgg agcagttcca cttaggcaag
180
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240
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300
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420
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1140

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 1229

<210> 5866  
 <211> 212  
 <212> PRT  
 <213> Homo sapiens

<400> 5866  
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 Arg Ala Gly Arg Thr Ala Arg Ala Asn Asn Pro Gly Ile Val Leu Thr  
 35 40 45  
 Phe Val Leu Pro Thr Glu Gln Phe His Leu Gly Lys Ile Glu Glu Leu  
 50 55 60  
 Leu Val Glu Arg Thr Gly Ala Pro Phe Cys Ser Pro Thr Ser Ser Gly  
 65 70 75 80  
 Trp Arg Arg Ser Arg Ala Ser Ala Ile Ala Ala Gly Val His Pro Gln  
 85 90 95  
 Asp Ala Met Arg Ser Val Thr Lys Gln Ala Ile Arg Glu Ala Arg Leu  
 100 105 110  
 Lys Glu Ile Lys Glu Glu Leu Leu His Ser Glu Lys Leu Lys Thr Tyr  
 115 120 125  
 Phe Glu Asp Asn Pro Arg Asp Leu Gln Leu Leu Arg His Asp Leu Pro  
 130 135 140  
 Leu His Pro Ala Val Val Lys Pro His Leu Gly His Val Pro Asp Tyr  
 145 150 155 160  
 Leu Val Pro Pro Ala Leu Arg Gly Leu Val Arg Pro His Lys Lys Arg  
 165 170 175  
 Lys Lys Leu Ser Ser Ser Cys Arg Lys Ala Lys Arg Ala Lys Ser Gln  
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 Ala Lys Pro Ser  
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<210> 5867  
 <211> 1882  
 <212> DNA  
 <213> Homo sapiens

<400> 5867  
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 180  
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 240

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420  
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ccctttctgt ctttctagtt tcttttctt gtctctctct gctgctctct ctactgttcc  
660  
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1740  
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1882

<210> 5868  
<211> 131  
<212> PRT  
<213> Homo sapiens

<400> 5868  
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Gln Thr Tyr Glu Arg Pro Ile Ala Phe Thr Ala Arg Ser Arg Lys Leu  
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35 40 45  
Ile Pro Tyr Val Thr Tyr Asp Glu Asp Tyr Glu Gln Leu Val Glu Asp  
50 55 60  
Ile Val Arg Asp Gly Arg Leu Tyr Ala Ser Glu Asn His Gln Glu Ile  
65 70 75 80  
Leu Lys Asp Lys Lys Leu Ile Lys Ala Phe Phe Glu Val Leu Ala His  
85 90 95  
Pro Gln Asn Tyr Phe Lys Tyr Thr Glu Lys His Lys Glu Met Leu Pro  
100 105 110  
Lys Ser Phe Ile Lys Leu Leu Arg Ser Lys Val Ser Ser Phe Leu Arg  
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Pro Tyr Lys  
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<210> 5869  
<211> 910  
<212> DNA  
<213> Homo sapiens

<400> 5869  
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120  
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tgggtattccg tgatattcaa atactaaaat acatgagttt ttattgggtg aattccatca  
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360  
agaatcatcg cagatcacia caggcagcct tctaattatg catcacgaag cttctaccca  
420  
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&lt;210&gt; 5876

&lt;211&gt; 1648

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5876

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 20 25 30  
 Glu Val Ser Ala Asp Gly Val Asn Met Leu Pro Leu Ser Thr Pro Val  
 35 40 45  
 Val Thr Ser Gly Leu Thr Tyr Ile Lys Ile Gln Leu Val Lys Ala Glu  
 50 55 60  
 Val Ala Ser Ala Val Cys Leu Arg Leu His Arg Pro Arg Asp Ala Ser

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      85          90          95
Thr Thr Ser Ser Ala Thr Val Asn Asn Pro Phe Leu Pro Ser Glu Asp
      100          105          110
Gln Val Ser Lys Thr Ser Ile Gly Trp Leu Arg Leu Leu His His Cys
      115          120          125
Leu Thr His Ile Ser Asp Leu Glu Gly Met Met Ala Ser Ala Ala Ala
      130          135          140
Pro Thr Ala Asn Leu Leu Gln Thr Cys Ala Ala Leu Leu Met Ser Pro
145          150          155          160
Tyr Cys Gly Met His Ser Pro Asn Ile Glu Val Val Leu Val Lys Ile
      165          170          175
Gly Leu Gln Ser Thr Arg Ile Gly Leu Lys Leu Ile Asp Ile Leu Leu
      180          185          190
Arg Asn Cys Ala Ala Ser Gly Ser Asp Pro Thr Asp Leu Asn Ser Pro
      195          200          205
Leu Leu Phe Gly Arg Leu Asn Gly Leu Ser Ser Asp Ser Thr Ile Asp
      210          215          220
Ile Leu Tyr Gln Leu Gly Thr Thr Gln Asp Pro Gly Thr Lys Asp Arg
225          230          235          240
Ile Gln Ala Leu Leu Lys Trp Val Ser Asp Ser Ala Arg Val Ala Ala
      245          250          255
Met Lys Arg Ser Gly Arg Met Asn Tyr Met Cys Pro Asn Ser Ser Thr
      260          265          270
Val Glu Tyr Gly Leu Leu Met Pro Ser Pro Ser His Leu His Cys Val
      275          280          285
Ala Ala Ile Leu Trp His Ser Tyr Glu Leu Leu Val Glu Tyr Asp Leu
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Pro Ala Leu Leu Asp Gln Glu Leu Phe Glu Leu Leu Phe Asn Trp Ser
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Met Ser Leu Pro Cys Asn Met Val Leu Lys Lys Ala Val Asp Ser Leu
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Leu Cys Ser Met Cys His Val His Pro Asn Tyr Phe Ser Leu Leu Met
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Gly Trp Met Gly Ile Thr Pro Pro Val Gln Cys His His Arg Leu
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Asp Asp Ser Lys Asn Ala Gln Ala Pro Leu Ala Leu Thr Glu Ser His
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Phe Cys Phe Ser His Ile Ser Ser Ser Glu Ser Ile Ala Gln Ser Ile
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Asp Ile Ser Gln Asp Lys Leu Arg Arg His His Val Pro Gln Gln Cys
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Asn Lys Met Pro Ile Thr Ala Asp Leu Val Ala Pro Ile Leu Arg Phe
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<210> 5877  
 <211> 683  
 <212> DNA  
 <213> Homo. sapiens

<400> 5877  
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<210> 5878  
 <211> 227  
 <212> PRT  
 <213> Homo sapiens

<400> 5878  
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 Arg Leu Arg Gly Cys Arg Asn Leu Tyr Lys Lys Asp Leu Leu Gly His  
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 Phe Gly Cys Val Asn Ala Ile Glu Phe Ser Asn Asn Gly Gly Gln Trp  
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 Leu Val Ser Gly Gly Asp Asp Arg Arg Val Leu Leu Trp His Met Glu  
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 Gln Ala Ile His Ser Arg Val Lys Pro Ile Gln Leu Lys Gly Glu His  
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 Phe Ser Gly Gly Asn Asp Glu Gln Val Ile Leu His Asp Val Glu Ser  
 130 135 140  
 Ser Glu Thr Leu Asp Val Phe Ala His Glu Asp Ala Val Tyr Gly Leu  
 145 150 155 160  
 Ser Val Ser Pro Val Asn Asp Asn Ile Phe Ala Ser Ser Ser Asp Asp  
 165 170 175  
 Gly Arg Val Leu Ile Trp Asp Ile Arg Glu Ser Pro His Gly Glu Pro  
 180 185 190  
 Phe Cys Trp Ala Asn Tyr Pro Ser Ala Phe His Ser Val Met Phe Asn  
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<210> 5879  
 <211> 1555  
 <212> DNA  
 <213> Homo sapiens

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 <211> 185  
 <212> PRT  
 <213> Homo sapiens

<400> 5880  
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 Phe Tyr Asp Val Glu Ala Leu Arg Asp Tyr Leu Leu Gln Arg Glu Met  
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 Tyr Lys Val His Glu Lys Asn Arg Ser Tyr Thr Trp Leu Glu Lys Gln  
 65 70 75 80  
 His Gly Pro Tyr Gly Ala Gly Ala Phe Phe Ile Leu Lys Gln Gly Gly  
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 Ala Val Lys Phe Arg Asp Lys Glu Trp Ile Arg Pro Asp Lys Tyr Gly  
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 Arg Thr Ser Ala Gly Trp Thr Ser Arg Thr Ser Leu Pro Cys Pro Thr  
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 <211> 327  
 <212> DNA  
 <213> Homo sapiens

<400> 5881  
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<210> 5882  
 <211> 109  
 <212> PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 5882

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 Ala Pro Ser Leu Asp Asp Pro Ala Arg Arg His Met Thr Ile His Val  
 50 55 60  
 Pro Leu Asp Ala Ser Arg Ser Lys Gln Leu Ile Ser Glu Trp Lys Gln  
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 Lys Ser Leu Glu Gly Arg Gly Leu Gly Leu Pro Asp Asp Ala Ser Pro  
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 Gly His Leu Arg Ala Pro Ala Glu Pro Met Pro Glu Xaa  
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&lt;210&gt; 5883

&lt;211&gt; 579

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5883

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&lt;210&gt; 5884

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5884

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<210> 5885
<211> 1905
<212> DNA
<213> Homo sapiens

<400> 5885
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&lt;210&gt; 5886

&lt;211&gt; 265

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5886

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Gly	Ala	Gly	Pro	Leu	Tyr	Ser	His	His	Leu	Pro	Thr	Ser	Pro	Leu	Gln
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Lys	Ala	Leu	Leu	Ala	Ala	Gly	Ser	Ala	Ala	Met	Ala	Leu	Tyr	Asn	Pro
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Gly	Lys	Leu	Gln	Ser	Leu	Pro	Glu	Gly	Ser	Leu	Gly	Arg	Glu	Tyr	Leu
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&lt;210&gt; 5887

&lt;211&gt; 3779

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5887

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<210> 5888  
 <211> 166  
 <212> PRT  
 <213> Homo sapiens

<400> 5888  
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 20 25 30  
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 35 40 45  
 Glu Thr Lys His Arg Val Ser Met Glu Val Ala Ala Lys Gly Leu  
 50 55 60  
 Pro Val Leu Lys Tyr His Leu Leu Pro Arg Thr Lys Gly Phe Thr Thr  
 65 70 75 80  
 Ala Val Lys Cys Leu Arg Gly Thr Val Ala Ala Val Tyr Asp Val Thr

```

      85              90              95
Leu Asn Phe Arg Gly Asn Lys Asn Pro Ser Leu Leu Gly Ile Leu Tyr
      100              105              110
Gly Lys Lys Tyr Glu Ala Asp Met Cys Val Arg Arg Phe Pro Leu Glu
      115              120              125
Asp Ile Pro Leu Asp Glu Lys Glu Ala Ala Gln Trp Leu His Lys Leu
      130              135              140
Tyr Gln Glu Lys Asp Ala Leu Gln Glu Val Lys Thr Leu Asp Gly Met
      145              150              155              160
Phe Pro Gly Glu Gln Phe
      165

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&lt;210&gt; 5889

&lt;211&gt; 2198

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5889

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1080

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 2160  
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 2198

<210> 5890

<211> 118

<212> PRT

<213> Homo sapiens

<400> 5890

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			20				25						30		
Glu	Cys	Ser	Gly	Thr	Ile	Thr	Ala	His	Cys	Ser	Leu	Asp	Phe	Pro	Gly
			35				40						45		
Ser	Ser	His	Ser	Pro	Thr	Ser	Ala	Ser	Gln	Ala	Val	Gly	Thr	Thr	Gly
			50				55						60		
Glu	Glu	Arg	Gln	Gln	His	Gly	Glu	Cys	Pro	Val	Pro	Thr	Pro	Trp	Lys



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65          70          75          80
Ala Val Pro Pro Gly Ser Pro Gly Val Gly Thr Gln Cys Leu Gly Gly
          85          90          95
Ala Leu Gly Cys Pro Thr Leu Gly Ala Thr Ala Arg Arg Gly Arg Ser
          100          105          110
Pro Ala Phe His His Leu
          115

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&lt;210&gt; 5891

&lt;211&gt; 1459

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5891

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1200

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<210> 5892

<211> 212

<212> PRT

<213> Homo sapiens

<400> 5892  
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 Phe Arg Asn Gly Ala Val Tyr Gly Ala Lys Ile Arg Ala Pro His Ala  
 35 40 45  
 Leu Val Met Thr Phe Leu Phe Arg Asn Gly Ser Leu Gln Glu Lys Leu  
 50 55 60  
 Trp Ala Ile Leu Gln Ala Thr Tyr Ile His Ser Trp Asn Leu Ala Arg  
 65 70 75 80  
 Phe Val Phe Thr Tyr Lys Gly Leu Arg Ala Leu Gln Ser Tyr Ile Gln  
 85 90 95  
 Gly Lys Thr Tyr Pro Ala His Ala Phe Leu Ala Ala Phe Leu Gly Gly  
 100 105 110  
 Ile Leu Val Phe Gly Glu Asn Asn Asn Ile Asn Ser Gln Ile Asn Met  
 115 120 125  
 Tyr Leu Leu Ser Arg Val Leu Phe Ala Leu Ser Arg Leu Ala Val Glu  
 130 135 140  
 Lys Gly Tyr Ile Pro Glu Pro Arg Trp Asp Pro Phe Pro Leu Leu Thr  
 145 150 155 160  
 Ala Val Val Trp Gly Leu Val Leu Trp Leu Phe Glu Tyr His Arg Ser  
 165 170 175  
 Thr Leu Gln Pro Ser Leu Gln Ser Ser Met Thr Tyr Leu Tyr Glu Asp  
 180 185 190  
 Ser Asn Val Trp His Asp Ile Ser Asp Phe Leu Val Tyr Asn Lys Ser  
 195 200 205  
 Arg Pro Ser Asn  
 210

<210> 5893

<211> 1389

<212> DNA

<213> Homo sapiens

<400> 5893

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aaaaaaaaa  
1389

&lt;210&gt; 5894

&lt;211&gt; 260

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5894

Met Val Trp Pro Ala Leu Trp Glu Leu Tyr Arg Glu Leu Gly Leu Phe

```

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      20           25           30
Arg Arg Lys Lys Lys Lys Ala Lys Arg Thr Thr Asn Trp Lys Ile Ile
      35           40           45
Thr Asp Arg Pro Gly Phe His Asp Glu Ser Ala Ile Tyr Pro Val Gly
      50           55           60
Tyr Cys Ser Thr Arg Ile Tyr Ala Ser Met Lys Cys Pro Asp Gln Lys
      65           70           75           80
Cys Leu Tyr Thr Cys Gln Ile Lys Asp Gly Gly Val Gln Pro Gln Phe
      85           90           95
Glu Ile Val Pro Glu Asp Asp Pro Gln Asn Ala Ile Val Ser Ser Ser
      100          105          110
Ala Asp Ala Cys His Ala Glu Leu Leu Arg Thr Ile Ser Thr Thr Met
      115          120          125
Gly Lys Leu Met Pro Asn Leu Leu Pro Ala Gly Ala Asp Phe Phe Gly
      130          135          140
Phe Ser His Pro Ala Ile His Asn Leu Ile Gln Ser Cys Pro Gly Ala
      145          150          155          160
Arg Lys Cys Ile Asn Tyr Gln Trp Val Lys Phe Asp Val Cys Lys Pro
      165          170          175
Gly Asp Gly Gln Leu Pro Glu Gly Leu Pro Glu Asn Asp Ala Ala Met
      180          185          190
Ser Phe Glu Ala Phe Gln Arg Gln Ile Phe Asp Glu Asp Gln Asn Asp
      195          200          205
Pro Leu Leu Pro Gly Ser Leu Asp Leu Pro Glu Leu Gln Pro Ala Ala
      210          215          220
Phe Val Ser Ser Tyr Gln Pro Met Tyr Leu Thr His Glu Pro Leu Val
      225          230          235          240
Asp Thr His Leu Gln His Leu Lys Ser Pro Ser Gln Gly Ser Pro Ile
      245          250          255
Gln Ser Ser Asp
      260

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&lt;210&gt; 5895

&lt;211&gt; 2748

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5895

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agaatcagtc ggccatttgt caacctcttt gttcccgagg accttggtgg cagttctgca
120
gccacagagg cagtggcgat tttgacagcc acataccctg tgggtcacat gccatacggc
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420

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 2700  
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 2748

&lt;210&gt; 5896

&lt;211&gt; 261

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5896

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 Leu Ala Thr Gln Arg Ile Ser Arg Pro Ile Val Asn Leu Phe Val Ser  
 20 25 30  
 Arg Asp Leu Gly Gly Ser Ser Ala Ala Thr Glu Ala Val Ala Ile Leu  
 35 40 45  
 Thr Ala Thr Tyr Pro Val Gly His Met Pro Tyr Gly Trp Leu Thr Glu  
 50 55 60  
 Ile Arg Ala Val Tyr Pro Ala Phe Asp Lys Asn Asn Pro Ser Asn Lys  
 65 70 75 80  
 Leu Val Ser Thr Ser Asn Thr Val Thr Ala Ala His Ile Lys Lys Phe  
 85 90 95  
 Thr Phe Val Cys Met Ala Leu Ser Leu Thr Leu Cys Phe Val Met Phe  
 100 105 110  
 Trp Thr Pro Asn Val Ser Glu Lys Ile Leu Ile Asp Ile Ile Gly Val  
 115 120 125  
 Asp Phe Ala Phe Ala Glu Leu Cys Val Val Pro Leu Arg Ile Phe Ser  
 130 135 140  
 Phe Phe Pro Val Pro Val Thr Val Arg Ala His Leu Thr Gly Trp Leu  
 145 150 155 160  
 Met Thr Leu Lys Lys Thr Phe Val Leu Ala Pro Ser Ser Val Leu Arg  
 165 170 175  
 Ile Ile Val Leu Ile Ala Ser Leu Val Val Leu Pro Tyr Leu Gly Val

	180		185		190										
His	Gly	Ala	Thr	Leu	Gly	Val	Gly	Ser	Leu	Leu	Ala	Gly	Phe	Val	Gly
	195		200		205										
Glu	Ser	Thr	Met	Val	Ala	Ile	Ala	Ala	Cys	Tyr	Val	Tyr	Arg	Lys	Gln
	210		215		220										
Lys	Lys	Lys	Met	Glu	Asn	Glu	Ser	Ala	Thr	Glu	Gly	Glu	Asp	Ser	Ala
	225		230		235									240	
Met	Thr	Asp	Met	Pro	Pro	Thr	Glu	Glu	Val	Thr	Asp	Ile	Val	Glu	Met
			245				250							255	
Arg	Glu	Glu	Asn	Glu											
			260												

&lt;210&gt; 5897

&lt;211&gt; 1930

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5897

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240
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300
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360
gagaacagta tccagcgggt gtgccaggag aaacaagttg attatgagat caatgcccac
420
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480
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540
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<210> 5898

<211> 242

<212> PRT

<213> Homo sapiens

<400> 5898

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 35 40 45  
 Leu Glu Val Gly Cys Gly Val Gly Asn Thr Val Phe Pro Ile Leu Gln  
 50 55 60  
 Thr Asn Asn Asp Pro Gly Leu Phe Val Tyr Cys Cys Asp Phe Ser Ser  
 65 70 75 80  
 Thr Ala Ile Glu Leu Val Gln Thr Asn Ser Glu Tyr Asp Pro Ser Arg  
 85 90 95  
 Cys Phe Ala Phe Val His Asp Leu Cys Asp Glu Glu Lys Ser Tyr Pro  
 100 105 110  
 Val Pro Lys Gly Ser Leu Asp Ile Ile Ile Leu Ile Phe Val Leu Ser  
 115 120 125  
 Ala Ile Val Pro Asp Lys Met Gln Lys Ala Ile Asn Arg Leu Ser Arg



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Asp Met Ala Gln Leu Arg Phe Lys Lys Gly Gln Cys Leu Ser Gly Asn
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Phe Tyr Val Arg Gly Asp Gly Thr Arg Val Tyr Phe Phe Thr Gln Glu
      180              185              190
Glu Leu Asp Thr Leu Phe Thr Thr Ala Gly Leu Glu Lys Val Gln Asn
      195              200              205
Leu Val Asp Arg Arg Leu Gln Val Asn Arg Gly Lys Gln Leu Thr Met
      210              215              220
Tyr Arg Val Trp Ile Gln Cys Lys Tyr Cys Lys Pro Leu Leu Ser Ser
225              230              235              240
Thr Ser

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&lt;210&gt; 5899

&lt;211&gt; 1589

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5899

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960

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<210> 5900  
 <211> 345  
 <212> PRT  
 <213> Homo sapiens

<400> 5900  
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 Ile Pro Thr Ile Ile Arg Asp Glu Leu Lys Thr Arg Gly Phe Gly  
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 Gly Ile Tyr Gly Val Gly Lys Ala Ala Leu His Pro Pro Ala Leu Ala  
 50 55 60  
 Val Leu Ser His Thr Pro Asp Gly Ala Thr Gln Thr Ile Ala Trp Val  
 65 70 75 80  
 Gly Lys Gly Ile Val Tyr Asp Thr Gly Gly Leu Ser Ile Lys Gly Lys  
 85 90 95  
 Thr Thr Met Pro Gly Met Lys Arg Asp Cys Gly Gly Ala Ala Ala Val  
 100 105 110  
 Leu Gly Ala Phe Arg Ala Ala Ile Lys Gln Gly Phe Lys Asp Asn Leu  
 115 120 125  
 His Ala Val Phe Cys Leu Ala Glu Asn Ser Val Gly Pro Asn Ala Thr  
 130 135 140  
 Arg Pro Asp Asp Ile His Leu Leu Tyr Ser Gly Lys Thr Val Glu Ile  
 145 150 155 160  
 Asn Asn Thr Asp Ala Glu Gly Arg Leu Val Leu Ala Asp Gly Val Ser  
 165 170 175  
 Tyr Ala Cys Lys Asp Leu Gly Ala Asp Ile Ile Leu Asp Met Ala Thr  
 180 185 190  
 Leu Thr Gly Ala Gln Gly Ile Ala Thr Gly Lys Tyr His Ala Ala Val

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      195              200              205
Leu Thr Asn Ser Ala Glu Trp Glu Ala Ala Cys Val Lys Ala Gly Arg
  210              215              220
Lys Cys Gly Asp Leu Val His Pro Leu Val Tyr Cys Pro Glu Leu His
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Phe Ser Glu Phe Thr Ser Ala Val Ala Asp Met Lys Asn Ser Val Ala
      245              250              255
Asp Arg Asp Asn Ser Pro Ser Ser Cys Ala Gly Leu Phe Ile Ala Ser
      260              265              270
His Ile Gly Phe Asp Trp Pro Gly Val Trp Val His Leu Asp Ile Ala
      275              280              285
Ala Pro Val His Ala Gly Glu Arg Ala Thr Gly Phe Gly Val Ala Leu
      290              295              300
Leu Leu Ala Leu Phe Gly Arg Ala Ser Glu Asp Pro Leu Leu Asn Leu
  305              310              315              320
Val Ser Pro Leu Gly Cys Glu Val Asp Val Glu Glu Gly Asp Leu Gly
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Arg Asp Ser Lys Arg Arg Arg Leu Val
      340              345

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&lt;210&gt; 5901

&lt;211&gt; 984

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5901

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840

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<210> 5902

<211> 328

<212> PRT

<213> Homo sapiens

<400> 5902

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 35 40 45  
 Val Glu Ala Gly Lys Ala Tyr Val Ser Thr Ser Arg Leu Phe Val Ser  
 50 55 60  
 Gly Val Arg Asp Leu Ser Gln Gln Cys Gln Gly Asp Thr Val Ile Ser  
 65 70 75 80  
 Glu Cys Leu Gln Arg Phe Ala Asp Ser Leu Gln Glu Val Val Asn Tyr  
 85 90 95  
 His Met Ile Leu Phe Asp Gln Ala Gln Arg Ser Val Arg Gln Gln Leu  
 100 105 110  
 Gln Ser Phe Val Lys Glu Asp Val Arg Lys Phe Lys Glu Thr Lys Lys  
 115 120 125  
 Gln Phe Asp Lys Val Arg Glu Asp Leu Glu Leu Ser Leu Val Arg Asn  
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 145 150 155 160  
 Ala Leu Thr Leu Thr Arg Lys Cys Phe Arg His Leu Ala Leu Asp Tyr  
 165 170 175  
 Val Leu Gln Ile Asn Val Leu Gln Ala Lys Lys Phe Glu Ile Leu  
 180 185 190  
 Asp Ser Met Leu Ser Phe Met His Ala Gln Ser Ser Phe Phe Gln Gln  
 195 200 205  
 Gly Tyr Ser Leu Leu His Gln Leu Asp Pro Tyr Met Lys Lys Leu Ala  
 210 215 220  
 Ala Glu Leu Asp Gln Leu Val Ile Asp Ser Ala Val Glu Lys Arg Glu  
 225 230 235 240  
 Met Glu Arg Lys His Ala Ala Ile Gln Gln Arg Thr Leu Arg Asp Phe  
 245 250 255  
 Ser Tyr Asp Glu Ser Lys Val Glu Phe Asp Val Asp Ala Pro Ser Gly  
 260 265 270  
 Val Val Met Glu Gly Tyr Leu Phe Lys Arg Ala Ser Asn Xaa Phe Lys  
 275 280 285  
 Thr Trp Asn Arg Arg Trp Phe Ser Ile Gln Asn Ser Gln Leu Val Tyr  
 290 295 300  
 Gln Lys Lys Leu Lys Asp Ala Leu Thr Val Val Val Asp Asp Leu Arg  
 305 310 315 320  
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325

&lt;210&gt; 5903

&lt;211&gt; 3734

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5903

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<210> 5904

<211> 308

<212> PRT

<213> Homo sapiens

<400> 5904

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			20					25					30		
Pro	Asp	Asp	Tyr	Phe	Leu	Leu	Arg	Trp	Leu	Arg	Ala	Arg	Ser	Phe	Asp
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Leu	Gln	Lys	Ser	Glu	Ala	Met	Leu	Arg	Lys	His	Val	Glu	Phe	Arg	Lys
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Gln	Lys	Asp	Ile	Asp	Asn	Ile	Ile	Ser	Trp	Gln	Pro	Pro	Glu	Val	Ile
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Gln	Gln	Tyr	Leu	Ser	Gly	Gly	Met	Cys	Gly	Tyr	Asp	Leu	Asp	Gly	Cys
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Pro	Val	Trp	Tyr	Asp	Ile	Ile	Gly	Pro	Leu	Asp	Ala	Lys	Gly	Leu	Leu
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Leu	Ser	Ala	Ser	Lys	Gln	Asp	Met	Ile	Arg	Lys	Gly	Ile	Lys	Val	Cys
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Glu	Leu	Leu	Leu	His	Glu	Cys	Glu	Leu	Gln	Thr	Gln	Lys	Leu	Gly	Arg
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Lys	Ile	Glu	Met	Ala	Leu	Met	Val	Phe	Asp	Met	Glu	Gly	Leu	Ser	Leu
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Lys	His	Leu	Trp	Lys	Pro	Ala	Val	Glu	Val	Tyr	Gln	Gln	Phe	Phe	Ser

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Arg Ala Pro Lys Leu Phe Pro Met Ala Phe Asn Leu Val Lys Ser Phe
      195      200      205
Met Ser Glu Asp Thr Arg Lys Lys Ile Met Val Leu Gly Ala Asn Trp
      210      215      220
Lys Glu Val Leu Leu Lys His Ile Ser Pro Asp Gln Val Pro Val Glu
      225      230      235      240
Tyr Gly Gly Thr Met Thr Asp Pro Asp Gly Asn Pro Lys Cys Lys Ser
      245      250      255
Lys Ile Asn Tyr Gly Gly Asp Ile Pro Arg Lys Tyr Tyr Val Arg Asp
      260      265      270
Gln Val Lys Gln Gln Tyr Glu His Ser Val Gln Ile Ser Arg Gly Ser
      275      280      285
Ser Gln Gln Val Glu Tyr Glu Ile Leu Phe Pro Gly Cys Val Leu Arg
      290      295      300
Trp Gln Phe Leu
305

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&lt;210&gt; 5905

&lt;211&gt; 2280

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5905

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 Ser Ala Gly Val Thr Val Val Ile Val Arg Asp Asp Leu Leu Gly Phe  
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 Ala Leu Arg Glu Cys Pro Ser Val Leu Glu Tyr Lys Val Gln Ala Gly  
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 Asn Ser Ser Leu Tyr Asn Thr Pro Pro Cys Phe Ser Ile Tyr Val Met  
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 Gly Leu Val Leu Glu Trp Ile Lys Asn Asn Gly Gly Ala Ala Ala Met  
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&lt;213&gt; Homo sapiens

&lt;400&gt; 5907

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&lt;400&gt; 5908

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Pro Asp Ser Arg Ala Leu His Tyr Met Lys Lys Leu Tyr Lys Thr Tyr
 85          90          95
Ala Thr Lys Glu Gly Ile Pro Lys Ser Asn Arg Ser His Leu Tyr Asn
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&lt;211&gt; 899

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5910

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370           375           380
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Thr Arg Glu Leu Glu Tyr Arg Gln Leu His Thr Leu Gln Lys Leu Arg
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Met Asp Leu Ile Arg Leu Gln His Gln Thr Glu Leu Glu Asn Gln Leu
          675          680          685
Glu Tyr Asn Lys Arg Arg Glu Arg Glu Leu His Arg Lys His Val Met
          690          695          700
Glu Leu Arg Gln Gln Pro Lys Asn Leu Lys Ala Met Glu Met Gln Ile
705          710          715          720
Lys Lys Gln Phe Gln Asp Thr Cys Lys Val Gln Thr Lys Gln Tyr Lys
          725          730          735
Ala Leu Lys Asn His Gln Leu Glu Val Thr Pro Lys Asn Glu His Lys
          740          745          750
Thr Ile Leu Lys Thr Leu Lys Asp Glu Gln Thr Arg Lys Leu Ala Ile
          755          760          765
Leu Ala Glu Gln Tyr Glu Gln Ser Ile Asn Glu Met Met Ala Ser Gln
          770          775          780
Ala Leu Arg Leu Asp Glu Ala Gln Glu Ala Glu Cys Gln Ala Leu Arg
785          790          795          800
Leu Gln Leu Gln Gln Glu Met Glu Leu Leu Asn Ala Tyr Gln Ser Lys
          805          810          815
Ile Lys Met Gln Thr Glu Ala Gln His Glu Arg Glu Leu Gln Lys Leu

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820                      825                      830  
 Glu Gln Arg Val Ser Leu Arg Arg Ala His Leu Glu Gln Lys Ile Glu  
                     835                      840                      845  
 Glu Glu Leu Ala Ala Leu Gln Lys Glu Arg Ser Glu Arg Ile Lys Asn  
                     850                      855                      860  
 Leu Leu Glu Arg Gln Glu Arg Glu Ile Glu Thr Phe Asp Met Glu Ser  
 865                      870                      875                      880  
 Leu Arg Met Gly Phe Gly Asn Leu Val Thr Leu Asp Phe Pro Lys Glu  
                     885                      890                      895  
 Asp Tyr Arg

&lt;210&gt; 5911

&lt;211&gt; 645

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5911

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&lt;210&gt; 5912

&lt;211&gt; 211

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5912

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 Cys Arg Pro Glu Leu Phe Leu Phe Gly Asn Leu Gly Ser Ser Ala Glu  
                     20                    25                    30  
 Asp Leu Ile Leu Pro Asp Gly Gly Thr Pro Ala Gly Thr Ser Ser Pro  
                     35                    40                    45  
 Ala Ser Ser Ser Ser Leu Leu Asn Arg Leu Gln Leu Asp Asp Asp Ile

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His Val Cys Thr Met Glu Thr Tyr Ile Thr Tyr Arg Ile Thr Thr Lys
      85      90      95
Ser Thr Arg Val Glu Phe Asp Leu Pro Glu Tyr Ser Val Arg Arg Arg
      100      105      110
Tyr Gln Asp Phe Asp Trp Leu Arg Ser Lys Leu Glu Glu Ser Gln Pro
      115      120      125
Thr His Leu Ile Pro Pro Leu Pro Glu Lys Phe Val Val Lys Gly Val
      130      135      140
Val Asp Arg Phe Ser Glu Glu Phe Val Glu Thr Arg Arg Lys Ala Leu
145      150      155      160
Asp Lys Phe Leu Lys Arg Ile Thr Asp His Pro Val Leu Ser Phe Asn
      165      170      175
Glu His Phe Asn Ile Phe Leu Thr Ala Lys Asp Leu Asn Ala Tyr Lys
      180      185      190
Lys Gln Gly Ile Ala Leu Leu Thr Arg Met Gly Glu Ser Val Lys His
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Val Thr Arg
210

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&lt;210&gt; 5913

&lt;211&gt; 2495

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5913

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780

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 <212> PRT  
 <213> Homo sapiens

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 Gly Gln Gly Phe Asp Arg His Leu Phe Ala Leu Arg His Leu Ala Ala  
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 Ala Xaa Gly Ile Ile Leu Pro Glu Leu Tyr Leu Asp Pro Ala Tyr Gly  
 65 70 75 80  
 Gln Ile Asn His Asn Val Leu Ser Thr Ser Thr Leu Ser Ser Pro Ala  
 85 90 95  
 Val Asn Xaa Cys Arg Phe Ala Pro Val Val Ser Asp Ala Phe Gly Val  
 100 105 110  
 Gly Tyr Ala Val His Asp Asn Trp Ile Gly Cys Asn Val Ser Ser Tyr  
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 <213> Homo sapiens

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 180  
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 240  
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 300  
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 <212> PRT  
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 Tyr Val Asn Phe Val Asn Glu Val Phe His Gln Ala Phe Leu Leu Pro  
 35 40 45  
 Ser Cys Glu Ile Ala Val Thr Arg Lys Val Val Gln Val Tyr Arg Lys  
 50 55 60  
 Trp Ile Leu Gln Asp Lys Pro Val Phe Met Glu Glu Pro Asp Arg Lys  
 65 70 75 80  
 Asp Val Ala Gln Glu Asp Ala Glu Lys Leu Gly Phe Ser Glu Thr Asp  
 85 90 95  
 Ser Lys Glu Ala Ser Ser Glu Ser Ser Gly His Lys Arg Ser Ser Ser  
 100 105 110  
 Trp Gly Arg Thr Tyr Ser Phe Thr Ser Ala Met Ser Arg Gly Cys Val  
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<210> 5917  
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5918



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 <212> PRT  
 <213> Homo sapiens

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 65 70 75 80  
 Ser Ser Gly Phe Phe Ser Ser Phe Glu Glu Ser Asp Ile Glu Asn His  
 85 90 95  
 Leu Ile Ser Gly His Asn Ile Val Gln Pro Thr Asp Ile Glu Glu Asn  
 100 105 110  
 Arg Thr Met Leu Phe Thr Ile Gly Gln Ser Glu Val Tyr Leu Ile Ser  
 115 120 125  
 Pro Asp Thr Lys Lys Ile Ala Leu Glu Lys Asn Phe Lys Glu Ile Ser  
 130 135 140  
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 145 150 155 160  
 Arg Glu Ser Ser Gly Gly Gly Phe His Phe Val Cys Tyr Val Phe  
 165 170 175  
 Gln Cys Thr Asn Glu Ala Leu Val Asp Glu Ile Met Met Thr Leu Lys  
 180 185 190  
 Gln Ala Phe Thr Val Ala Ala Val Gln Gln Thr Ala Lys Ala Pro Ala  
 195 200 205  
 Gln Leu Cys Glu Gly Cys Pro Leu Gln Ser Leu His Lys Leu Cys Glu  
 210 215 220  
 Arg Ile Glu Gly Met Asn Ser Ser Lys Thr Lys Leu Glu Leu Gln Lys  
 225 230 235 240  
 His Leu Thr Thr Leu Thr Asn Gln Glu Gln Ala Thr Ile Phe Glu Glu  
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 Val Gln Lys Leu Arg Pro Arg Asn Glu Gln Arg Glu Asn Glu Leu Ile  
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 275 280 285  
 His Ile Gly Glu Met Lys Gln Thr Ser Gln Met Ala Ala Glu Asn Ile  
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 Gly Ser Glu Leu Pro Pro Ser Ala Thr Arg Phe Arg Leu Asp Met Leu  
 305 310 315 320  
 Lys Asn Lys Ala Lys Arg Ser Leu Thr Glu Ser Leu Glu Ser Ile Leu  
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 Ser Arg Gly Asn Lys Ala Arg Gly Leu Gln Glu His Ser Ile Ser Val  
 340 345 350  
 Asp Leu Asp Ser Ser Leu Ser Ser Thr Leu Ser Asn Thr Ser Lys Glu  
 355 360 365  
 Pro Ser Val Cys Glu Lys Glu Ala Leu Pro Ile Ser Glu Ser Ser Phe  
 370 375 380  
 Lys Leu Leu Gly Ser Ser Glu Asp Leu Ser Ser Asp Ser Glu Ser His

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420          425          430
Gln Pro Ala Arg Gly Ser Pro Gly Val Ser Gln Arg Lys Leu Met Arg
435          440          445
Tyr His Ser Val Ser Thr Glu Thr Pro His Glu Arg Lys Asp Phe Glu
450          455          460
Ser Lys Ala Asn His Leu Gly Asp Ser Gly Gly Thr Pro Val Lys Thr
465          470          475          480
Arg Arg His Ser Trp Arg Gln Gln Ile Phe Leu Arg Val Ala Thr Pro
485          490          495
Gln Lys Ala Cys Asp Ser Ser Ser Arg Tyr Glu Asp Tyr Ser Glu Leu
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Gly Glu Leu Pro Pro Arg Ser Pro Leu Glu Pro Val Cys Glu Asp Gly
515          520          525
Pro Phe Gly Pro His Gln Arg Lys Arg Lys Gly His Leu Val Ser Ser
530          535          540
Glu Ser Cys Gly Lys Gly Leu Phe Phe Asn Arg Tyr Cys Xaa Leu Arg
545          550          555          560
Met Glu Lys Glu Asn Gln Lys Leu Gln Ala Ser Glu Asn Asp Leu Leu
565          570          575
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580          585          590
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595          600          605
Lys Ile Lys Phe Asp Met Glu Lys Met His Ser Ala Val Gly Gln Gly
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645          650          655
Pro Tyr Lys Glu Leu Leu Lys Gln Leu Thr Ser Gln Gln His Ala Ile
660          665          670
Leu Ile Asp Leu Gly Arg Thr Phe Pro Thr His Pro Tyr Phe Ser Ala
675          680          685
Gln Leu Gly Ala Gly Gln Leu Ser Leu Tyr Asn Ile Leu Lys Ala Tyr
690          695          700
Ser Leu Leu Asp Gln Glu Val Gly Tyr Cys Gln Gly Leu Ser Phe Val
705          710          715          720
Ala Gly Ile Leu Leu Leu His Met Ser Glu Glu Glu Ala Phe Lys Met
725          730          735
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740          745          750
Asp Met Ile Ile Leu Gln Ile Gln Met Tyr Gln Leu Ser Arg Leu Leu
755          760          765
His Asp Tyr His Arg Asp Leu Tyr Asn His Leu Glu Glu His Glu Ile
770          775          780
Gly Pro Ser Leu Tyr Ala Ala Pro Trp Phe Leu Thr Met Phe Ala Ser
785          790          795          800
Gln Phe Pro Leu Gly Phe Val Ala Arg Val Phe Asp Met Ile Phe Leu
805          810          815
Gln Gly Thr Glu Val Ile Phe Lys Val Ala Leu Ser Leu Leu Gly Ser

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820                      825                      830  
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 Phe Ile Lys Ser Thr Leu Pro Asn Leu Gly Leu Val Gln Met Glu Lys  
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 Thr Ile Asn Gln Val Phe Glu Met Asp Ile Ala Lys Gln Leu Gln Ala  
 865                      870                      875                      880  
 Tyr Glu Val Glu Tyr His Val Leu Gln Glu Glu Leu Ile Asp Ser Ser  
 885                      890                      895  
 Pro Leu Ser Asp Asn Gln Arg Met Asp Lys Leu Glu Lys Thr Asn Ser  
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 Ser Leu Arg Lys Gln Asn Leu Asp Leu Leu Glu Gln Leu Gln Val Ala  
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 Ser Glu Ser Lys Leu Lys Gln Ala Met Leu Thr Leu Glu Leu Glu Arg  
 945                      950                      955                      960  
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<400> 5920

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			20					25					30		
Gly	Val	Gly	Pro	Trp	Arg	Gly	Trp	Lys	Thr	Thr	Trp	His	Leu	Gly	Gly
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Gly	Ala	Thr	Gly	Ser	Gly	Arg	Ala	Trp	Ala	Ala	Glu	Lys	Phe	Arg	Gly
	50				55					60					
Leu	Gln	Glu	Arg	Ala	Glu	Arg	Val	Pro	Pro	Arg	Ser	Cys	Glu	Arg	His
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<211> 4130

<212> DNA

<213> Homo sapiens

<400> 5921

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<211> 1252

<212> PRT

<213> Homo sapiens

<400> 5922

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		20					25					30			
Lys	Ser	Val	Ile	Ile	Trp	Thr	Ser	Lys	Leu	Glu	Gly	Ile	Leu	Lys	Tyr
		35				40						45			
Thr	His	Asn	Asp	Ala	Ile	Gln	Cys	Val	Ser	Tyr	Asn	Pro	Ile	Thr	His
	50				55						60				
Gln	Leu	Ala	Ser	Cys	Ser	Ser	Ser	Asp	Phe	Gly	Leu	Trp	Ser	Pro	Glu
65				70					75					80	
Gln	Lys	Ser	Val	Ser	Lys	His	Lys	Ser	Ser	Ser	Lys	Ile	Ile	Cys	Cys
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Ser	Trp	Thr	Asn	Asp	Gly	Gln	Tyr	Leu	Ala	Leu	Gly	Met	Phe	Asn	Gly
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Arg	Pro	Gly	Gly	Ser	Leu	Ser	Pro	Ile	Trp	Ser	Ile	Cys	Trp	Asn	Pro
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Ser	Ser	Arg	Trp	Glu	Ser	Phe	Trp	Met	Asn	Arg	Glu	Asn	Glu	Asp	Ala
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Glu	Asp	Val	Ile	Val	Asn	Arg	Tyr	Ile	Gln	Glu	Ile	Pro	Ser	Thr	Leu
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Lys	Ser	Ala	Val	Tyr	Ser	Ser	Gln	Gly	Ser	Glu	Ala	Glu	Glu	Glu	Glu
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Pro	Glu	Glu	Glu	Asp	Asp	Ser	Pro	Arg	Asp	Asp	Asn	Leu	Glu	Glu	Arg
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Gly Thr Val Gly Glu Gln Asn Ser Trp Val Trp Thr Cys Gln Ala Lys
      275                280                285
Pro Asp Ser Asn Tyr Val Val Val Gly Cys Gln Asp Gly Thr Ile Ser
      290                295                300
Phe Tyr Gln Leu Ile Phe Ser Thr Val His Gly Leu Tyr Lys Asp Arg
305                310                315                320
Tyr Ala Tyr Arg Asp Ser Met Thr Asp Val Ile Val Gln His Leu Ile
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Thr Glu Gln Lys Val Arg Ile Lys Cys Lys Glu Leu Val Lys Lys Ile
      340                345                350
Ala Ile Tyr Arg Asn Arg Leu Ala Ile Gln Leu Pro Glu Lys Ile Leu
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Ile Tyr Glu Leu Tyr Ser Glu Asp Leu Ser Asp Met His Tyr Arg Val
      370                375                380
Lys Glu Lys Ile Ile Lys Lys Phe Glu Cys Asn Leu Leu Val Val Cys
385                390                395                400
Ala Asn His Ile Ile Leu Cys Gln Glu Lys Arg Leu Gln Cys Leu Ser
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      420                425                430
Tyr Ile Lys Val Ile Gly Gly Pro Pro Gly Arg Glu Gly Leu Leu Val
      435                440                445
Gly Leu Lys Asn Gly Gln Ile Leu Lys Ile Phe Val Asp Asn Leu Phe
      450                455                460
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      485                490                495
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545                550                555                560
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Gln Ile Ala Cys Leu Gly Val Thr Asp Thr Asp Trp Arg Glu Leu Ala
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Met Glu Ala Leu Glu Gly Leu Asp Phe Glu Thr Ala Lys Lys Ala Phe
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625                630                635                640
Glu Arg Lys Lys Arg Gly Glu Thr Asn Asn Asp Leu Phe Leu Ala Asp

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 675 680 685  
 Met Phe Glu Tyr Ala Lys Asp Phe Leu Gly Ser Gly Asp Pro Lys Glu  
 690 695 700  
 Thr Lys Met Leu Ile Thr Lys Gln Ala Asp Trp Ala Arg Asn Ile Lys  
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 Glu Pro Lys Ala Ala Val Glu Met Tyr Ile Ser Ala Gly Glu His Val  
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 995 1000 1005  
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Glu Phe Val Pro Val Val Val Ser Arg Leu Val Leu Arg Ser Met Ser		
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Arg Arg Asp Val Leu Ile Lys Arg Trp Pro Pro Pro Leu Arg Trp Gln		
1140	1145	1150
Tyr Phe Arg Ser Leu Leu Pro Asp Ala Ser Ile Thr Met Cys Pro Ser		
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Cys Phe Gln Val Gly Gly His Pro Gly Ser Ser His Val Leu Leu Leu		
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Ala Thr Phe Pro Leu Pro Lys Cys Pro Ser Gly Arg Arg Gly Pro Trp		
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Glu Gly Gly Ala His Pro Trp Leu Gln Val Gly Thr Glu Ala Cys Leu		
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Ser Ser Pro Leu Leu Ala Phe His Val His Leu Lys Trp Thr Ser Leu		
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&lt;210&gt; 5924

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5924

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Asn	Ile	Gln	Asn	Ile	Asp
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Ser	Leu	Tyr	Ala	Pro	Asp
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Asn	Ser	Lys	Ser	Pro	Leu
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Gly	Thr	Gly	Gln	Val	Ser
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Leu	Lys				
	145				

&lt;210&gt; 5925

&lt;211&gt; 4538

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5925

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 <211> 526  
 <212> PRT  
 <213> Homo sapiens

<400> 5926  
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 35 40 45  
 Ala Pro Pro Pro Ile Ser Pro Val Leu Pro Leu Val Pro Pro Pro Ala  
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 Thr Ala Leu Asn Pro Pro Ala Pro Pro Thr Phe His Gln Pro Gln Lys  
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 85 90 95  
 Ala Thr Leu Thr His Asp Ala Pro Ala Thr Thr Phe Ser Gln Ser Gln  
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 Gly Leu Val Ile Thr Thr His His Pro Ala Pro Ser Ala Ala Pro Cys  
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 Gly Leu Ala Leu Ser Pro Val Thr Arg Pro Pro Gln Pro Arg Leu Thr  
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 465 470 475 480  
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&lt;210&gt; 5927

&lt;211&gt; 1786

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5927

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&lt;210&gt; 5928

&lt;211&gt; 202

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5928

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      35           40           45
Phe Leu Met Glu Asn Arg Val Gln Ser Phe Tyr Gln Gln Glu Leu Glu
      50           55           60
Met Val Glu Ser Leu Leu Ser Leu Ala Asn Gln Pro Val Ile His Ser
      65           70           75           80
Ala Cys Ser Asp Gln Val Asn Phe Lys Lys Asp Thr Thr Ser Lys Ala
      85           90           95
Ile His Ser Ile Phe Lys Asn Ala Ile Gln Leu Leu Gln Glu Lys Gly
      100          105          110
Leu Val Phe Gln Lys Asp Asp Gly Phe Asp Asn Leu Tyr Tyr Val Thr
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Arg Glu Asp Lys Asp Leu His Arg Lys Ile His Arg Ile Ile Gln Gln
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Asp Cys Gln Lys Pro Asn His Met Glu Lys Gly Cys His Phe Leu His
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Ile Leu Ala Cys Ala Arg Leu Ser Ile Arg Pro Gly Leu Ser Glu Ala
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Ser Thr Met Glu His Tyr Tyr Thr Ala Phe
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&lt;210&gt; 5929

&lt;211&gt; 606

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5929

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 <213> Homo sapiens

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 Lys Glu Pro Leu Gly Arg Ala Glu Arg Pro Gly Arg Pro Cys Thr Arg  
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 Leu Gln Pro Ala Gly Ser Val Ser Ser Thr Pro Leu Ser Thr Pro Cys  
 50 55 60  
 Ser Ser Val Pro Ser Ser Pro Ser Phe Ser Pro Thr Glu Gln Lys Thr  
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 His Leu Glu Asp Leu Tyr Trp Met Ala Ser Asn Tyr Gln Gln Met Asn  
 85 90 95  
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 <212> DNA  
 <213> Homo sapiens

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 Glu Val Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu Asn Cys  
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 Pro Glu Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala Val Leu  
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 100 105

&lt;210&gt; 5933

&lt;211&gt; 1953

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5933

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&lt;211&gt; 2727

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5935

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&lt;210&gt; 5938

&lt;211&gt; 406

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5938

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&lt;210&gt; 5941

&lt;211&gt; 2590

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5941

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<210> 5942

<211> 89

<212> PRT

<213> Homo sapiens

<400> 5942

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Arg	Gln	Ser	Leu	Ala	Leu	Leu	Xaa	Gln	Val	Gly	Val	Gln	Trp	His	Asp
			20					25					30		
Pro	Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Gly	Phe	Lys	Gln	Phe	Ser	Cys

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Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg Cys Leu Ser Ser Arg Leu
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Gly Trp Ser Gln Thr Pro Asp Leu Lys
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 <213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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20     25     30
Gly Val Ser Ser Ile Thr Lys Leu Gln Arg Gln Pro Phe Gly Val Glu

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Thr Lys Pro Gly Ile Leu Cys Cys Phe Gln Asn Glu Phe Glu Asn Pro
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Cys Phe Pro Lys Ser His Phe Ser Val Thr Gln Ala Gly Glu Gln Trp
  65          70          75          80
Arg Asp Leu Ser Ser Pro Gln Pro Pro Pro Arg Phe Lys Gln Phe
      85          90          95
Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp His Arg His Pro Pro Pro
     100          105          110
Arg Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Glu Val Ser Pro Arg
     115          120          125
Ser Arg Ser Pro Asp Leu Met Xaa Ser Ala His Leu Gly Leu Pro Lys
     130          135          140
Cys Trp Asp Tyr Arg Arg Glu Pro Leu Arg Pro Ala Gln Ile Ser Leu
     145          150          155          160
Leu Phe Ser Lys Ser Pro Ser Gln Asp Ile Gln Ala Lys Ala
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<210> 5945  
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 <212> DNA  
 <213> Homo sapiens

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  869

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<210> 5946  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn Gln Gln  
 50 55 60  
 Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Gly Glu Lys Ile Gln  
 65 70 75 80  
 Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu Glu Leu  
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<210> 5947  
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 <212> PRT  
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<210> 5949  
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<210> 5950  
 <211> 397  
 <212> PRT  
 <213> Homo sapiens

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 Val Asp Glu Ala Gly Ile Asp Gln Asp Gly Val Phe Lys Glu Phe Leu  
 50 55 60  
 Glu Glu Ile Ile Lys Arg Val Phe Asp Pro Ala Leu Asn Leu Phe Lys  
 65 70 75 80  
 Thr Thr Ser Gly Asp Glu Arg Leu Tyr Pro Ser Pro Thr Ser Tyr Ile  
 85 90 95  
 His Glu Asn Tyr Leu Gln Leu Phe Glu Phe Val Gly Lys Met Leu Gly  
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 Lys Ala Val Tyr Glu Gly Ile Val Val Asp Val Pro Phe Ala Ser Phe  
 115 120 125  
 Phe Leu Ser Gln Leu Leu Gly His His His Ser Val Phe Tyr Ser Ser  
 130 135 140  
 Val Asp Glu Leu Pro Ser Leu Asp Ser Glu Phe Tyr Lys Asn Leu Thr  
 145 150 155 160  
 Ser Ile Lys Arg Tyr Asp Gly Asp Ile Thr Asp Leu Gly Leu Thr Leu  
 165 170 175  
 Ser Tyr Asp Glu Asp Val Met Gly Gln Leu Val Cys His Glu Leu Ile  
 180 185 190  
 Pro Gly Gly Lys Thr Ile Pro Val Thr Asn Glu Asn Lys Ile Ser Tyr  
 195 200 205  
 Ile His Leu Met Ala His Phe Arg Met His Thr Gln Ile Lys Asn Gln

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      245              250              255
Asn Ala Glu Ile Asp Leu Glu Asp Leu Lys Lys His Thr Val Tyr Tyr
      260              265              270
Gly Gly Phe His Gly Ser His Arg Val Ile Ile Trp Leu Trp Asp Ile
      275              280              285
Leu Ala Ser Asp Phe Thr Pro Asp Glu Arg Ala Met Phe Leu Lys Phe
      290              295              300
Val Thr Ser Cys Ser Arg Pro Pro Leu Leu Gly Phe Ala Tyr Leu Lys
      305              310              315              320
Pro Pro Phe Ser Ile Arg Cys Val Glu Val Ser Asp Asp Gln Asp Thr
      325              330              335
Gly Asp Thr Leu Gly Ser Val Leu Arg Gly Phe Phe Thr Ile Arg Lys
      340              345              350
Arg Glu Pro Gly Gly Arg Leu Pro Thr Ser Ser Thr Cys Phe Asn Leu
      355              360              365
Leu Lys Leu Pro Asn Tyr Ser Lys Lys Ser Val Leu Arg Glu Lys Leu
      370              375              380
Arg Tyr Ala Ile Ser Met Asn Thr Gly Phe Glu Leu Ser
      385              390              395

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&lt;210&gt; 5951

&lt;211&gt; 1724

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5951

```

ngaaatcttg tataaccgccc gcgagaagaa gccgatcgag cctttgtctg gaaagtcagc
60
atctccggct ccggctgcaa tgtgttctctg gtgacattag catcgggcag acccgccagg
120
agaggagggg tcgccagggt cccgtctgct ttcggaggcg gatcgagcgg gtgacttttg
180
tgcattcggt ttaatttttg gaaatctctc ttttttcctc cctcgctcgc tgccgggcat
240
gtcctgatct ggcggccgct cctaccaccc tgggcagccg agcagagtgg tccccagcgg
300
tctccctccc tgcctccctg actttgcaac accgcgttcc gggaggaccg gcctcggcga
360
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420
gaggaggaag ccaggagctg agcgcgccgc gtgggctgct tcgccctccg gctccgagcg
480
ccgggctccg ggcgcctgc cctgcgcctg ggcagcagcc ttgctggtct tgggggcgcc
540
ccccgcttcc cgcccggggg gttcgcgccc ggcaggacca tgctgctgaa agagtaccgg
600
atctgcatgc cgctcacctg agacgagtac aaaattggac agctgtacat gatcagcaaa
660
cacagccatg aacagagtga ccggggagaa ggggtggagg tcgtccagaa tgagcccttt
720

```

gaggaccctc accatggcaa tgggcagttc accgagaagc ggggtgatct caacagcaaa  
 780  
 ctgcctagtt gggctagagc tgttgtcccc aaaatatttt atgtgacaga gaaggcttgg  
 840  
 aactattatc cctacacaat tacagaatac acatgttctt ttctgccgaa attctccatt  
 900  
 catatagaaa ccaagtatga ggacaacaaa ggaagcaatg acaccatttt cgacaatgaa  
 960  
 gccaaagacg tggagagaga agtttgcttt attgatattg cctgcgatga aattccagag  
 1020  
 cgctactaca aagaatctga ggatcctaag cacttcaagt cagagaagac aggacgggga  
 1080  
 cagttgaggg aaggctggag agatagtcat cagcctatca tgtgctccta caagctgggtg  
 1140  
 actgtgaagt ttgaggtctg ggggcttcag accagagtgg aacaatttgt acacaagggtg  
 1200  
 gtccgagaca ttctgctgat tggacataga caggcttttg catgggttga tgagtgggtat  
 1260  
 gacatgacaa tggatgaagt ccgagaattt gaacgagcca ctccaggaagc caccaacaag  
 1320  
 aaaatcggca ttttcccacc tgcaatttct atctccagca tccccctgct gctttcttcc  
 1380  
 gtccgcagtg cgccttctag tgctccatcc acccctctct ccacagacgc acccgaattt  
 1440  
 ctgtccgttc ccaaagatcg gcccggaaa aagtctgccc cagaaactct cacacttcca  
 1500  
 gaccctgaga aaaaagccac cctgaattta cccggcatgc actcttcaga taagccatgt  
 1560  
 cggcccaaat ctgagtaact ttatataaat atctcatggg gttttatatt ttcatttgg  
 1620  
 gttgttgttt ttttttaaga atcttctgat agagaaaaag actgctttgt cactcaaaaca  
 1680  
 tgttccttcg accttaaaaa aaaaaaaaaa aaaaaaaaaa aaaa  
 1724

&lt;210&gt; 5952

&lt;211&gt; 378

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5952

Ala Arg Arg Val Gly Cys Phe Ala Leu Arg Leu Arg Ala Pro Gly Ser  
 1 5 10 15  
 Gly Arg Pro Ala Leu Arg Leu Gly Ser Ser Leu Ala Gly Leu Gly Gly  
 20 25 30  
 Ala Pro Arg Phe Pro Pro Gly Gly Phe Ala Ala Gly Arg Thr Met Leu  
 35 40 45  
 Leu Lys Glu Tyr Arg Ile Cys Met Pro Leu Thr Val Asp Glu Tyr Lys  
 50 55 60  
 Ile Gly Gln Leu Tyr Met Ile Ser Lys His Ser His Glu Gln Ser Asp  
 65 70 75 80  
 Arg Gly Glu Gly Val Glu Val Val Gln Asn Glu Pro Phe Glu Asp Pro  
 85 90 95  
 His His Gly Asn Gly Gln Phe Thr Glu Lys Arg Val Tyr Leu Asn Ser

```

      100      105      110
Lys Leu Pro Ser Trp Ala Arg Ala Val Val Pro Lys Ile Phe Tyr Val
  115      120      125
Thr Glu Lys Ala Trp Asn Tyr Tyr Pro Tyr Thr Ile Thr Glu Tyr Thr
  130      135      140
Cys Ser Phe Leu Pro Lys Phe Ser Ile His Ile Glu Thr Lys Tyr Glu
  145      150      155      160
Asp Asn Lys Gly Ser Asn Asp Thr Ile Phe Asp Asn Glu Ala Lys Asp
  165      170      175
Val Glu Arg Glu Val Cys Phe Ile Asp Ile Ala Cys Asp Glu Ile Pro
  180      185      190
Glu Arg Tyr Tyr Lys Glu Ser Glu Asp Pro Lys His Phe Lys Ser Glu
  195      200      205
Lys Thr Gly Arg Gly Gln Leu Arg Glu Gly Trp Arg Asp Ser His Gln
  210      215      220
Pro Ile Met Cys Ser Tyr Lys Leu Val Thr Val Lys Phe Glu Val Trp
  225      230      235      240
Gly Leu Gln Thr Arg Val Glu Gln Phe Val His Lys Val Val Arg Asp
  245      250      255
Ile Leu Leu Ile Gly His Arg Gln Ala Phe Ala Trp Val Asp Glu Trp
  260      265      270
Tyr Asp Met Thr Met Asp Glu Val Arg Glu Phe Glu Arg Ala Thr Gln
  275      280      285
Glu Ala Thr Asn Lys Lys Ile Gly Ile Phe Pro Pro Ala Ile Ser Ile
  290      295      300
Ser Ser Ile Pro Leu Leu Pro Ser Ser Val Arg Ser Ala Pro Ser Ser
  305      310      315      320
Ala Pro Ser Thr Pro Leu Ser Thr Asp Ala Pro Glu Phe Leu Ser Val
  325      330      335
Pro Lys Asp Arg Pro Arg Lys Lys Ser Ala Pro Glu Thr Leu Thr Leu
  340      345      350
Pro Asp Pro Glu Lys Lys Ala Thr Leu Asn Leu Pro Gly Met His Ser
  355      360      365
Ser Asp Lys Pro Cys Arg Pro Lys Ser Glu
  370      375

```

```

<210> 5953
<211> 777
<212> DNA
<213> Homo sapiens

```

```

<400> 5953
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60
ggctcgccgc ctggaaaga ggctttccgg cagagatgcc tggagagaat gagaacacgc
120
cgggacaggc tctaaacag gtaccgccag ctgngaagca gtgggccagg gaattctcag
180
aacagctttc tagttcaaga ggtgatggaa gaagagtgga atgctttgca gtcagtggag
240
aattgtccag aagacttggc tcagctggag gagctgatag acatggctgt gctggaggaa
300
attcaacagg agctgatcaa ccaagagcag tccatcatca gcgagtatga gaagagcttg
360

```



cagtttgatg aaaagtgtct cagcatcatg ctggctgagt gggaggcaaa cccactcatc  
 420  
 tgtcctgtat gtacaaagcc tgtgatactt gggctgtgat cctctagagc cagcttggac  
 480  
 tcacatcatt ctatgggggtt gaagacaact cattccctctt gaggagcctt gtacatacaa  
 540  
 gcctctttatt tataacttat ttgtattga aactttttaa caatactgaa gaaaaaaaaa  
 600  
 cttttccgac atctgttctt ggtcttttgt gacgcagggtt gaagggggag gaatagaaaa  
 660  
 agacaaaactg ccttggagga gataaaccaa ttttatgtct atcatgttat acaaaaatct  
 720  
 agaaataata gatttgtaca' gaaaaaatg ataataaatg agaacacaaa acatata  
 777

&lt;210&gt; 5954

&lt;211&gt; 152

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5954

Phe Arg His Glu Ala Arg Ser Arg Lys Arg Ser Pro Arg Arg Ser Leu  
 1 5 10 15  
 Tyr Lys Leu Val Gly Ser Pro Pro Trp Lys Glu Ala Phe Arg Gln Arg  
 20 25 30  
 Cys Leu Glu Arg Met Arg Asn Ser Arg Asp Arg Leu Leu Asn Arg Tyr  
 35 40 45  
 Arg Gln Leu Xaa Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu  
 50 55 60  
 Val Gln Glu Val Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu  
 65 70 75 80  
 Asn Cys Pro Glu Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala  
 85 90 95  
 Val Leu Glu Glu Ile Gln Gln Glu Leu Ile Asn Gln Glu Gln Ser Ile  
 100 105 110  
 Ile Ser Glu Tyr Glu Lys Ser Leu Gln Phe Asp Glu Lys Cys Leu Ser  
 115 120 125  
 Ile Met Leu Ala Glu Trp Glu Ala Asn Pro Leu Ile Cys Pro Val Cys  
 130 135 140  
 Thr Lys Pro Val Ile Leu Gly Leu  
 145 150

&lt;210&gt; 5955

&lt;211&gt; 1459

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5955

nncaattgga ctgcattatc aaacacatgt gctatgtaca tcctcagtgc acctgccagc  
 60  
 agatatcctg gagggctcat gagtgaattt agtccaagat ttaaagccct gccccagggt  
 120  
 gctcagcctg tgatctgtat ccactcagca tgcacttggg cagatgattt gtctgtgtgc  
 180

tacccttccc cccatattac catacatatg cacggcggga ccagcagcga cggtagcagc  
 240  
 agcatggccg cgatctatgg ggggtgtagg gggggaggga cacgatccga ggtcctttta  
 300  
 gtctcagagg atgggaagat cctggcagaa gcagatggac tgagcacaaa ccaactggctg  
 360  
 atcgggacag acaagtgtgt ggagaggatc aatgagatgg tgaacagggc caaacggaaa  
 420  
 gcaggggtgg atcctctggt accgctgcga agcttggggc tatctctgag cgggtggggac  
 480  
 caggaggagc cggggaggat cctgatcgag gagctgaggg accgatttcc ctacctgagt  
 540  
 gaaagctact taatcaccac cgatgcgcgc ggctccatcg ccacagctac accggatggt  
 600  
 ggagttgtgc tcatacttg aacaggctcc aactgcaggc tcatacaacc tgatggctcc  
 660  
 gagagtggct gcggcggctg gggccatag atgggtgatg agggttcagc cctctctgct  
 720  
 ccctcagcct actggatcgc acaccaagca gtgaaaatag tgtttgactc cattgacaac  
 780  
 cttagggcgg ctccctatga tatcggtac gtcaaacagg ccatgttcca ctatttcag  
 840  
 gtgccagatc ggctagggat actcactcac ctgtatagg actttgataa atgcaggttt  
 900  
 gctgggtttt gccggaaaat tgcagaaggt gctcagcagg gagaccccct tccccgctat  
 960  
 atcttcagga aggtcgggga gatgctgggc agacacatcg tagcagtgtt gcccagatt  
 1020  
 gacccgggtc tggtccaggg caagattgga ctcccatcc tgtgcgtggg ctctgtgtgg  
 1080  
 aagagctggg agctgctgaa ggaaggtttt cttttggcgc tgaccaggg cagagagatc  
 1140  
 caggctcaga actttcttct cagcttcacc ctgatgaagc tgaggcactc ctccgctctg  
 1200  
 ggtggggcca gcctaggggc caggcacatc gggcacctcc tccccatgga ctatagcgcc  
 1260  
 aatgccattg ccttctatc ctacacctt tcctaggggg ctggtcccgg ctccaccccc  
 1320  
 tccaagctca gtggacactg ggtctgaaag gaaggagtct tttgcttct tctcctttt  
 1380  
 tacaaaaa aacatagaag aaaataaatg cactttatcc actccccaaa aaaaaaaaaa  
 1440  
 aaaaaaaaaa aagtcgacg  
 1459

&lt;210&gt; 5956

&lt;211&gt; 431

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5956

Xaa Asn Trp Thr Ala Leu Ser Asn Thr Cys Ala Met Tyr Ile Leu Ser

1

5

10

15

Ala Pro Ala Ser Arg Tyr Pro Gly Gly Leu Met Ser Glu Phe Ser Pro

```

      20      25      30
Arg Phe Lys Ala Leu Pro Pro Gly Ala Gln Pro Val Ile Cys Ile His
   35      40      45
Ser Ala Cys Thr Trp Ala Asp Asp Leu Ser Val Cys Tyr Pro Ser Pro
   50      55      60
His Ile Thr Ile His Met His Gly Gly Thr Ser Ser Asp Gly Ser Ser
   65      70      75      80
Ser Met Ala Ala Ile Tyr Gly Gly Val Glu Gly Gly Gly Thr Arg Ser
   85      90      95
Glu Val Leu Leu Val Ser Glu Asp Gly Lys Ile Leu Ala Glu Ala Asp
  100      105      110
Gly Leu Ser Thr Asn His Trp Leu Ile Gly Thr Asp Lys Cys Val Glu
  115      120      125
Arg Ile Asn Glu Met Val Asn Arg Ala Lys Arg Lys Ala Gly Val Asp
  130      135      140
Pro Leu Val Pro Leu Arg Ser Leu Gly Leu Ser Leu Ser Gly Gly Asp
  145      150      155      160
Gln Glu Asp Ala Gly Arg Ile Leu Ile Glu Glu Leu Arg Asp Arg Phe
  165      170      175
Pro Tyr Leu Ser Glu Ser Tyr Leu Ile Thr Thr Asp Ala Ala Gly Ser
  180      185      190
Ile Ala Thr Ala Thr Pro Asp Gly Gly Val Val Leu Ile Ser Gly Thr
  195      200      205
Gly Ser Asn Cys Arg Leu Ile Asn Pro Asp Gly Ser Glu Ser Gly Cys
  210      215      220
Gly Gly Trp Gly His Met Met Gly Asp Glu Gly Ser Ala Leu Ser Ala
  225      230      235      240
Pro Ser Ala Tyr Trp Ile Ala His Gln Ala Val Lys Ile Val Phe Asp
  245      250      255
Ser Ile Asp Asn Leu Glu Ala Ala Pro His Asp Ile Gly Tyr Val Lys
  260      265      270
Gln Ala Met Phe His Tyr Phe Gln Val Pro Asp Arg Leu Gly Ile Leu
  275      280      285
Thr His Leu Tyr Arg Asp Phe Asp Lys Cys Arg Phe Ala Gly Phe Cys
  290      295      300
Arg Lys Ile Ala Glu Gly Ala Gln Gln Gly Asp Pro Leu Ser Arg Tyr
  305      310      315      320
Ile Phe Arg Lys Ala Gly Glu Met Leu Gly Arg His Ile Val Ala Val
  325      330      335
Leu Pro Glu Ile Asp Pro Val Leu Phe Gln Gly Lys Ile Gly Leu Pro
  340      345      350
Ile Leu Cys Val Gly Ser Val Trp Lys Ser Trp Glu Leu Leu Lys Glu
  355      360      365
Gly Phe Leu Leu Ala Leu Thr Gln Gly Arg Glu Ile Gln Ala Gln Asn
  370      375      380
Phe Phe Ser Ser Phe Thr Leu Met Lys Leu Arg His Ser Ser Ala Leu
  385      390      395      400
Gly Gly Ala Ser Leu Gly Ala Arg His Ile Gly His Leu Leu Pro Met
  405      410      415
Asp Tyr Ser Ala Asn Ala Ile Ala Phe Tyr Ser Tyr Thr Phe Ser
  420      425      430

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&lt;210&gt; 5957

&lt;211&gt; 855

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5957

atggcggagt cggtgaggtc tccgcgccgc tccctgtaca aactggtggg ctgcgccct  
 60  
 tggaaagagg ctttccggca gagatgcctg gagagaatga gaaacagccg ggacaggctc  
 120  
 ctaaacaggt accgccaggc tggaagcagt gggccaggga attctcagaa cagctttcta  
 180  
 gttcaagagg tgatggaaga agagtggaat gctttgcagt cagtggagaa ttgtccagaa  
 240  
 gacttggtc agctggagga gctgatagac atggctgtgc tggaggaaat tcaacaggag  
 300  
 ctgatcaacc aaggcctgtg atacttgggc tgtgaccc tagagccagc ttggactcac  
 360  
 atcattctat ggggttgaag acaactcatt ccctctgagg agccttgtag atacaagcct  
 420  
 tttatttata acttattttg tattgaaact tttaaacaat actgaagaaa aaaaaacttt  
 480  
 tccgacatct gttcttggtc ttttgtaga caggttgaag ggggaggaat agaaaaagac  
 540  
 aaactgcctt ggaggagata aaccaatttt atgtctatca tgtatataaa aaatctagaa  
 600  
 ataatagatt tgtacagaaa aaaatgataa taaatgagag cacaaaacat ataatttaaa  
 660  
 tctggtatct tttccccc atgatttaga tgataatcat ttcaaagcac atgtctagct  
 720  
 tcagagtagg atttgttcac tggccaaagc ctgccatgaa actatggctt tcagcatctg  
 780  
 tctgctctac tggctcttga caaaactctt gaggtcttca agaaaagtaa tgtactcctg  
 840  
 gtgctccagg gctgt  
 855

&lt;210&gt; 5958

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5958

Met Ala Glu Ser Leu Arg Ser Pro Arg Arg Ser Leu Tyr Lys Leu Val  
 1 5 10 15  
 Gly Ser Pro Pro Trp Lys Glu Ala Phe Arg Gln Arg Cys Leu Glu Arg  
 20 25 30  
 Met Arg Asn Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln Ala Gly  
 35 40 45  
 Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln Glu Val  
 50 55 60  
 Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu Asn Cys Pro Glu  
 65 70 75 80  
 Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala Val Leu Glu Glu  
 85 90 95  
 Ile Gln Gln Glu Leu Ile Asn Gln Gly Leu

100

105

<210> 5959  
 <211> 830  
 <212> DNA  
 <213> Homo sapiens

<400> 5959  
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 60  
 tttctcggg gccctatgat gctgggtctt gagaagttag cactgatat tccttgctg  
 120  
 ctatatgatg acaatctctt ctgtcatttg gtggatgaag tactcttggt tgaaagggag  
 180  
 ctacacagtg ttcattgcta tcctggcact tttgctaatt gtatgcatat tctatcagag  
 240  
 gaaacctgtt ttcaaagatg ggtgacggg gagagaaaat ttgctcttca aaaaatggac  
 300  
 tcaatgcttt cctcagaagc tgcttgggta tcgcaatata aggatatcac tgacgtggat  
 360  
 gaaatgaaag ttccagattg tgcagaaact tttatgactc tactcttggt tataactgac  
 420  
 aggtataaaa atcttcccac agcttcccga aagcttcagt tcctggagtt acagaaggac  
 480  
 ttagtagatg atttttagat acgattaaca caagtgatga aagaagagac tagagcttcc  
 540  
 cttggctttc gatactgtgc aattcttaat gctgtgaact acatctcaac agtactagca  
 600  
 gattgggctg acaatgtttt cttctacaa cttcaacagg ctgcactgga ggtgtttgca  
 660  
 gagaataata ctctgagtaa attgcagcta ggacagctag cctctatgga gagctctgtc  
 720  
 tttgatgaca tgattaacct cttagaacgt ttaaagcatg atatgttgac ccgtcaagta  
 780  
 gaccacgttt ttagagaagt taaagatgct gcaaaattgt ataaaaaaga  
 830

<210> 5960  
 <211> 251  
 <212> PRT  
 <213> Homo sapiens

<400> 5960  
 Met Met Leu Val Leu Glu Lys Leu Ala Thr Asp Ile Pro Cys Leu Leu  
 1 5 10 15  
 Tyr Asp Asp Asn Leu Phe Cys His Leu Val Asp Glu Val Leu Leu Phe  
 20 25 30  
 Glu Arg Glu Leu His Ser Val His Gly Tyr Pro Gly Thr Phe Ala Asn  
 35 40 45  
 Cys Met His Ile Leu Ser Glu Glu Thr Cys Phe Gln Arg Trp Val Thr  
 50 55 60  
 Gly Glu Arg Lys Phe Ala Leu Gln Lys Met Asp Ser Met Leu Ser Ser  
 65 70 75 80  
 Glu Ala Ala Trp Val Ser Gln Tyr Lys Asp Ile Thr Asp Val Asp Glu

5139

```

      85      90      95
Met Lys Val Pro Asp Cys Ala Glu Thr Phe Met Thr Leu Leu Leu Val
      100      105      110
Ile Thr Asp Arg Tyr Lys Asn Leu Pro Thr Ala Ser Arg Lys Leu Gln
      115      120      125
Phe Leu Glu Leu Gln Lys Asp Leu Val Asp Asp Phe Arg Ile Arg Leu
      130      135      140
Thr Gln Val Met Lys Glu Glu Thr Arg Ala Ser Leu Gly Phe Arg Tyr
      145      150      155      160
Cys Ala Ile Leu Asn Ala Val Asn Tyr Ile Ser Thr Val Leu Ala Asp
      165      170      175
Trp Ala Asp Asn Val Phe Phe Leu Gln Leu Gln Gln Ala Ala Leu Glu
      180      185      190
Val Phe Ala Glu Asn Asn Thr Leu Ser Lys Leu Gln Leu Gly Gln Leu
      195      200      205
Ala Ser Met Glu Ser Ser Val Phe Asp Asp Met Ile Asn Leu Leu Glu
      210      215      220
Arg Leu Lys His Asp Met Leu Thr Arg Gln Val Asp His Val Phe Arg
      225      230      235      240
Glu Val Lys Asp Ala Ala Lys Leu Tyr Lys Lys
      245      250

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&lt;210&gt; 5961

&lt;211&gt; 585

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5961

```

gctcggggct gcaatgcgct ctaatggtgc ctgtgaataa ccactgcatt cagcctgggc
60
aatgaagcga gaccccgctc taaaaaaaaa aattgagggg tcaaagagga tgccaaactt
120
aattagagac tgagacaggg caggggtgccg aggtgtctgc atgcgtttca tgtggatgcc
180
cgtgtctatt ctggcctgct cctgggcccc ctccccactc agccctggct gatgagaatg
240
ggacagggac tcccttctcg tgtccctgtg cagcgtcggc ccaggaggta gcagagcagt
300
atatgcacat ctgggtgtgc cctcctgcat gtccccacac atctgtcatt cctgtctttg
360
cacacctatg tgactccgcg atgtttgtgt ccttatgtgt cccatgcatg ctccccatct
420
gaccttgctg gttctcgcgt gtctgtgtgc ggccagtcct gccttcactc tctcatgggt
480
ggccctggca gcatgtctgg ctccccagca ggtgagctca ggagataaga tggaagatgc
540
aacagccaat ggtcaagaag actccaaggc cccagatggg tccac
585

```

&lt;210&gt; 5962

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5962

```

Met Cys Gly Asp Met Gln Glu Gly Thr Pro Arg Cys Ala Tyr Thr Ala
 1           5           10           15
Leu Leu Pro Pro Gly Pro Thr Leu His Arg Asp Thr Arg Arg Glu Ser
      20           25           30
Leu Ser His Ser His Gln Pro Gly Leu Ser Gly Glu Gly Ala Gln Glu
      35           40           45
Gln Ala Arg Ile Asp Thr Gly Ile His Met Lys Arg Met Gln Thr Pro
      50           55           60
Arg His Pro Ala Leu Ser Gln Ser Leu Ile Lys Phe Gly Ile Leu Phe
65           70           75           80
Asp Pro Ser Ile Phe Phe Leu Glu Thr Gly Ser Arg Phe Ile Ala Gln
      85           90           95
Ala Glu Cys Ser Gly Tyr Ser Gln Ala Pro Leu Glu Arg Thr Ala Ala
      100          105          110
Pro Ser

```

&lt;210&gt; 5963

&lt;211&gt; 1288

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5963

```

atgggggctgt ttgaaagac ccaggagaag ccgcccacaa aactggtcaa tgagtgtgta
60
ttgaagataa gaaaggaaat gagagtgttt gacaggcaaa taaggatat ccaaagagaa
120
gaagaaaaag tgaacgatac tgtgaaagat gctgccaaga agggccagaa ggatgtctgc
180
atagttctgg ccaaggagat gatcagggtca aggaaggctg tgagcaagct gtatgcatcc
240
aaagcacaca tgaactcagt gctcatgggg atgaagaacc agctcgcggt cttgcgagtg
300
gctggttccc tgcagaagag cacagaagtg atgaaggcca tgcaaagtct tgtgaagatt
360
ccagagattc agggccaccat gagggagttg tccaaagaaa tgatgaaggc tgggatcata
420
gaggagatgt tagaggacac ttttgaaagc atggacgatac aggaagaaat ggaggaagaa
480
gcagaaatgg aaattgacag aattctcttt gaaattacag caggggcctt gggcaaagca
540
cccagtaaag tgactgatgc ccttcagag ccagaacctc caggagcgat ggctgcctca
600
gaggatgagg aggaggagga agaggctctg gaggccatgc agtcccggct ggccacactc
660
cgcagctagg ggctgcctac cccgctgggt gtgcacacac tcctctcaag agctgccatt
720
ttatgtgtct cttgcactac acctctgttg tgaggactac cattttggag aaggttctgt
780
ttgtctcttt tcattctctg cccaggtttt gggatcgcaa agggattgtt cttataaaag
840
tggcataaat aaatgcatac tttttaggag tatagacaga tatatcttat tgtggggagg
900

```

ggaaagaaat ccattctctc atgaagcact tctgaaaata taggtgattg cctgaatgac  
 960  
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<210> 5964

<211> 222

<212> PRT

<213> Homo sapiens

<400> 5964

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			20					25					30		
Gln	Ile	Arg	Asp	Ile	Gln	Arg	Glu	Glu	Glu	Lys	Val	Lys	Arg	Ser	Val
		35				40					45				
Lys	Asp	Ala	Ala	Lys	Lys	Gly	Gln	Lys	Asp	Val	Cys	Ile	Val	Leu	Ala
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Lys	Glu	Met	Ile	Arg	Ser	Arg	Lys	Ala	Val	Ser	Lys	Leu	Tyr	Ala	Ser
65					70				75					80	
Lys	Ala	His	Met	Asn	Ser	Val	Leu	Met	Gly	Met	Lys	Asn	Gln	Leu	Ala
			85					90					95		
Val	Leu	Arg	Val	Ala	Gly	Ser	Leu	Gln	Lys	Ser	Thr	Glu	Val	Met	Lys
			100					105					110		
Ala	Met	Gln	Ser	Leu	Val	Lys	Ile	Pro	Glu	Ile	Gln	Ala	Thr	Met	Arg
			115					120				125			
Glu	Leu	Ser	Lys	Glu	Met	Met	Lys	Ala	Gly	Ile	Ile	Glu	Glu	Met	Leu
130						135					140				
Glu	Asp	Thr	Phe	Glu	Ser	Met	Asp	Asp	Gln	Glu	Glu	Met	Glu	Glu	Glu
145				150					155					160	
Ala	Glu	Met	Glu	Ile	Asp	Arg	Ile	Leu	Phe	Glu	Ile	Thr	Ala	Gly	Ala
			165					170					175		
Leu	Gly	Lys	Ala	Pro	Ser	Lys	Val	Thr	Asp	Ala	Leu	Pro	Glu	Pro	Glu
			180					185					190		
Pro	Pro	Gly	Ala	Met	Ala	Ala	Ser	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Glu
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<210> 5965

<211> 1011

<212> DNA

<213> Homo sapiens



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 240  
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 720  
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 780  
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 900  
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<210> 5966

<211> 233

<212> PRT

<213> Homo sapiens

<400> 5966

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 20 25 30  
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 35 40 45  
 Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln Ala Gly Ser Ser Gly  
 50 55 60  
 Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln Glu Val Met Glu Glu  
 65 70 75 80  
 Glu Trp Asn Ala Leu Gln Xaa Gln Trp Xaa Asn Cys Pro Glu Asp Leu

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Gln	Glu	Leu	Ile	Asn	Gln	Glu	Gln	Ser	Ile	Ile	Ser	Glu	Tyr	Glu	Lys
	115						120					125			
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	130						135					140			
Glu	Ala	Asn	Pro	Leu	Ile	Cys	Pro	Val	Cys	Thr	Lys	Tyr	Asn	Leu	Arg
	145						150				155			160	
Ile	Thr	Ser	Gly	Val	Val	Val	Cys	Gln	Cys	Gly	Leu	Ser	Ile	Pro	Ser
			165						170				175		
His	Ser	Ser	Glu	Leu	Thr	Glu	Gln	Lys	Leu	Arg	Ala	Cys	Leu	Glu	Gly
			180						185				190		
Ser	Ile	Asn	Glu	His	Ser	Ala	His	Cys	Pro	His	Thr	Pro	Glu	Phe	Ser
			195					200				205			
Val	Thr	Gly	Gly	Thr	Glu	Glu	Lys	Ser	Ser	Leu	Leu	Met	Ser	Cys	Leu
	210						215					220			
Ala	Cys	Asp	Thr	Trp	Ala	Val	Ile	Leu							
225					230										

&lt;210&gt; 5967

&lt;211&gt; 1806

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5967

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720
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840

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 1806

<210> 5968

<211> 434

<212> PRT

<213> Homo sapiens

<400> 5968

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 Gly Thr Ser Ser Leu Ile Ser Gly Leu Ile Leu Ile Phe Glu Trp Trp  
 35 40 45  
 Tyr Phe Arg Lys Tyr Gly Thr Ser Phe Ile Glu Gln Val Ser Val Ser  
 50 55 60  
 His Leu Arg Pro Leu Leu Gly Gly Val Asp Asn Asn Ser Ser Asn Asn  
 65 70 75 80  
 Ser Asn Ser Ser Asn Gly Asp Ser Asp Ser Asn Arg Gln Ser Val Ser  
 85 90 95  
 Glu Cys Lys Val Trp Arg Asn Pro Leu Asn Leu Phe Arg Gly Ala Glu

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Tyr Asn Arg Tyr Thr Trp Val Thr Gly Arg Glu Pro Leu Thr Tyr Tyr
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Ser Asp His Leu Arg Pro Ala Asp Ala Ile Met Gln Lys Ala Trp Arg
      145      150      155      160
Glu Arg Asn Pro Gln Ala Arg Ile Ser Ala Ala His Glu Ala Leu Glu
      165      170      175
Ile Asn Glu Thr Arg His Gln Cys Leu Gly Val His Gln Lys Lys Ala
      180      185      190
Ser Asn Val Cys Gln Lys Thr Arg Glu Asp Gln Gly Ser Lys Ala Leu
      195      200      205
Leu Glu Leu Gln Ala Tyr Ala Asp Val Gln Ala Val Leu Ala Lys Tyr
      210      215      220
Asp Asp Ile Ser Leu Pro Lys Ser Ala Thr Ile Cys Tyr Thr Ala Ala
      225      230      235      240
Leu Leu Lys Ala Arg Ala Val Ser Asp Lys Phe Ser Pro Glu Ala Ala
      245      250      255
Ser Arg Arg Gly Leu Ser Thr Ala Glu Met Asn Ala Val Glu Ala Ile
      260      265      270
His Arg Ala Val Glu Phe Asn Pro His Val Pro Lys Tyr Leu Leu Glu
      275      280      285
Met Lys Ser Leu Ile Leu Pro Pro Glu His Ile Leu Lys Arg Gly Asp
      290      295      300
Ser Glu Ala Ile Ala Tyr Ala Phe Phe His Leu Ala His Trp Lys Arg
      305      310      315      320
Val Glu Gly Ala Leu Asn Leu Leu His Cys Thr Trp Glu Gly Thr Phe
      325      330      335
Arg Met Ile Pro Tyr Pro Leu Glu Lys Gly His Leu Phe Tyr Pro Tyr
      340      345      350
Pro Ile Cys Thr Glu Thr Ala Asp Arg Glu Leu Leu Pro Ser Phe His
      355      360      365
Glu Val Ser Val Tyr Pro Lys Lys Glu Leu Pro Phe Phe Ile Leu Phe
      370      375      380
Thr Ala Gly Leu Cys Ser Phe Thr Ala Met Leu Ala Leu Leu Thr His
      385      390      395      400
Gln Phe Pro Glu Leu Met Gly Val Phe Ala Lys Ala Val Ser Val Cys
      405      410      415
Leu Glu Gly Gly Leu Gly Glu Trp Met Gly Lys Ala Lys Gly Ile Lys
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Ala Ala

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&lt;210&gt; 5969

&lt;211&gt; 429

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5969

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120

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 420  
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 429

<210> 5970  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

<400> 5970  
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 Gly Val Leu Ala Ser Gln Ala Met Ile Glu Lys Ile Leu Ser Glu Asp  
 35 40 45  
 Pro Arg Trp Gln Asp Ala Asn Phe Val Leu Gly Ser Tyr Lys Thr Glu  
 50 55 60  
 Gln Cys Pro Lys Pro Pro Arg Leu Cys Arg Gln Gly Tyr Ala Cys Pro  
 65 70 75 80  
 His Tyr His Asn Ser Arg Asp Arg Arg Arg Asn Pro Arg Arg Phe Gln  
 85 90 95  
 Tyr Arg Ser Thr Pro Cys Pro Ser Val Lys His Gly Asp Glu Trp Gly  
 100 105 110  
 Glu Pro Ser Arg Cys Asp Gly Gly Asp Gly Cys Gln Tyr Cys His Ser  
 115 120 125  
 Arg Thr Glu Gln Gln Phe His Pro Glu Ile Tyr Lys Ser Thr Lys  
 130 135 140

<210> 5971  
 <211> 565  
 <212> DNA  
 <213> Homo sapiens

<400> 5971  
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 120  
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 180  
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 240  
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 420  
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 480  
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 565

<210> 5972  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

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 Arg Asp Ser Ser Leu Leu Tyr Pro His Phe Thr Gly Glu Gly Ile Glu  
 35 40 45  
 Ala Gln Lys Val Arg Ser Leu Leu Gln Asp Asp Gln Leu Asn Gln Asn  
 50 55 60  
 Phe Arg Ala Ser Asn Thr Lys Cys Val Pro Leu Ser Ser Val Ser His  
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 Leu Leu Pro Arg Gly Ser Ala Ser Ser Leu Trp Pro Leu Ser Ile Leu  
 85 90 95  
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<210> 5973  
 <211> 797  
 <212> DNA  
 <213> Homo sapiens

<400> 5973  
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 420  
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<210> 5974  
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 <212> PRT  
 <213> Homo sapiens

<400> 5974  
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 35 40 45  
 Pro His Pro Gly Leu Ser Pro Thr Ser Gly Thr Leu Met Pro Gly Arg  
 50 55 60  
 Arg Arg Gly Gly Pro Ser Phe Gly Thr Pro Ala Leu Arg Arg Arg Lys  
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 Cys His Arg Glu Ala Pro Ala Ser Gly Leu Ser Thr Ala Ala Arg Glu  
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 Arg Leu Trp Trp Pro Arg Ala Arg Val Cys Arg  
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<210> 5975  
 <211> 2175  
 <212> DNA  
 <213> Homo sapiens

<400> 5975  
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 420

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1980  
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2040



acctagatca gccatcagcc tgtcaactca gttacaagt taaggaccga agtgtttcaa  
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 2160  
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 2175

<210> 5976  
 <211> 564  
 <212> PRT  
 <213> Homo sapiens

<400> 5976  
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 20 25 30  
 Asp Leu Ala Tyr Glu Arg Gln Tyr Glu Gln Gln Thr Tyr Gln Val Ile  
 35 40 45  
 Pro Glu Val Ile Lys Asn Phe Ile Gln Tyr Phe His Lys Thr Val Ser  
 50 55 60  
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 Ser Asp Val Ile Asp Gln Lys Val Tyr Glu Ile Gln Asp Ile Tyr Glu  
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 Asn Ser Trp Thr Lys Leu Thr Glu Arg Phe Phe Lys Asn Thr Pro Trp  
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 Pro Glu Ala Glu Ala Ile Ala Pro Gln Val Gly Asn Asp Ala Val Phe  
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 Ser Gly Gly Pro Ser Leu Glu Gln Arg Phe Glu Ser Tyr Tyr Asn Tyr  
 145 150 155 160  
 Cys Asn Leu Phe Asn Tyr Ile Leu Asn Ala Asp Gly Pro Ala Pro Leu  
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 Ala Gly Glu Tyr Gly Arg His Ser Leu Tyr Lys Met Leu Gly Tyr Phe  
 260 265 270  
 Ser Leu Val Gly Leu Leu Arg Leu His Ser Leu Leu Gly Asp Tyr Tyr  
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 Tyr Ser Arg Val Pro Glu Cys Gln Val Thr Thr Tyr Tyr Tyr Val Gly  
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      325      330      335
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Thr Thr Tyr Lys Tyr Glu Met Ile Asn Lys Gln Asn Glu Gln Met His
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Ala Leu Leu Ala Ile Ala Leu Thr Met Tyr Pro Met Arg Ile Asp Glu
      370      375      380
Ser Ile His Leu Gln Leu Arg Glu Lys Tyr Gly Asp Lys Met Leu Arg
      385      390      395      400
Met Gln Lys Gly Asp Pro Gln Val Tyr Glu Glu Leu Phe Ser Tyr Ser
      405      410      415
Cys Pro Lys Phe Leu Ser Pro Val Val Pro Asn Tyr Asp Asn Val His
      420      425      430
Pro Asn Tyr His Lys Glu Pro Phe Leu Gln Gln Leu Lys Val Phe Ser
      435      440      445
Asp Glu Val Gln Gln Gln Ala Gln Leu Ser Thr Ile Arg Ser Phe Leu
      450      455      460
Lys Leu Tyr Thr Thr Met Pro Val Ala Lys Leu Ala Gly Phe Leu Asp
      465      470      475      480
Leu Thr Glu Gln Glu Phe Arg Ile Gln Leu Leu Val Phe Lys His Lys
      485      490      495
Met Lys Asn Leu Val Trp Thr Ser Gly Ile Ser Ala Leu Asp Gly Glu
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Phe Gln Ser Ala Ser Glu Val Asp Phe Tyr Ile Asp Lys Asp Met Ile
      515      520      525
His Ile Ala Asp Thr Lys Val Ala Arg Arg Tyr Gly Asp Phe Phe Ile
      530      535      540
Arg Gln Ile His Lys Phe Glu Glu Leu Asn Arg Thr Leu Lys Lys Met
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Gly Gln Arg Pro

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&lt;210&gt; 5977

&lt;211&gt; 2320

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5977

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<210> 5978  
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 <212> PRT  
 <213> Homo sapiens

<400> 5978  
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 Gly Arg Gly Gly Gln Ile Ile Xaa Ala Arg Ser Ser Arg Pro Ala Trp  
 35 40 45  
 Thr Thr Trp Arg Xaa Val Phe Thr Lys Asn Thr Lys Ile Ser Trp Ala  
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 Trp Trp Tyr Thr Pro Val Ile Pro Ala Thr Gln Glu Ala  
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 <212> DNA  
 <213> Homo sapiens

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780  
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<210> 5980  
<211> 169  
<212> PRT  
<213> Homo sapiens

<400> 5980  
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20 25 30  
Ser Gly Gln Glu Asp Tyr Asp Arg Leu Arg Pro Leu Ser Tyr Gln Asn  
35 40 45  
Thr His Leu Val Leu Ile Cys Tyr Asp Val Met Asn Pro Thr Ser Tyr  
50 55 60  
Asp Asn Val Leu Ile Lys Trp Phe Pro Glu Val Thr His Phe Cys Arg  
65 70 75 80  
Gly Ile Pro Met Val Leu Ile Gly Cys Lys Thr Asp Leu Arg Lys Asp  
85 90 95  
Lys Glu Gln Leu Arg Lys Leu Arg Ala Ala Gln Leu Glu Pro Ile Thr  
100 105 110  
Tyr Met Gln Gly Leu Ser Ala Cys Glu Gln Ile Arg Ala Ala Leu Tyr  
115 120 125  
Leu Glu Cys Ser Ala Lys Phe Arg Glu Asn Val Glu Asp Val Phe Arg  
130 135 140  
Glu Ala Ala Lys Val Ala Leu Ser Ala Leu Lys Lys Ala Gln Arg Gln  
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Lys Lys Arg Arg Leu Cys Leu Leu Leu  
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<210> 5981  
<211> 677  
<212> DNA  
<213> Homo sapiens

<400> 5981  
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 677

&lt;210&gt; 5982

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5982

Met	Gln	Asn	Gly	Ser	Pro	Ala	Pro	Thr	Ser	Leu	Leu	Ser	Gly	Arg	Pro
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Arg	Ile	Pro	Lys	Ser	Asp	Asp	Gly	Thr	Arg	Thr	Gly	Arg	Asn	Asp	Ser
		20					25					30			
Pro	Arg	Ala	Pro	Leu	Pro	Arg	Ser	Ser	Ala	Arg	Arg	Pro	Ser	Lys	Ala
		35				40					45				
Asn	Leu	His	Thr	Leu	Gly	Gln	Leu	Lys	Leu	Ser	Arg	Arg	Cys	Arg	Glu
	50				55				60						
Pro	Arg	Leu	Gly	Arg	Ala	Gly	Gln	Gln	Arg	Leu	His	Pro	Arg	Thr	Arg
	65				70				75			80			
Pro	Arg	Arg	Gly	Ser	Gly	Pro	Leu	Val	Arg	Ala	Gly	Arg	Arg	Gly	Trp
			85					90						95	

Gly Lys

&lt;210&gt; 5983

&lt;211&gt; 790

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5983

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cattgttttc cttaaattac tggtaaattt tgaataaac agtccaaga tgtgattatt  
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 300  
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 790

&lt;210&gt; 5984

&lt;211&gt; 186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5984

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 Leu Gln Glu Ile Lys Thr Ile Gly Tyr Thr Ser Pro Arg Ser Arg Thr  
 20 25 30  
 Glu Val Asn Arg Gln Cys Pro Gly Glu Lys Glu Pro Val Ser Asp Leu  
 35 40 45  
 Gln Leu Gly Leu Asp Ala Val Glu Pro Thr Ala Leu His Lys Thr Leu  
 50 55 60  
 Glu Thr Pro Ala His Asp Arg Ala Glu Pro Asn Ser Gln Leu Asp Ser  
 65 70 75 80  
 Thr His Ser Gly Arg Gly Thr Met Tyr Ser Ser Trp Val Lys Ser Pro  
 85 90 95  
 Asp Arg Thr Gly Val Asn Phe Ser Val Asn Ser Asn Leu Arg Asp Leu  
 100 105 110  
 Thr Pro Ser His Gln Leu Glu Val Gly Gly Phe Arg Ile Ser Glu  
 115 120 125  
 Ser Lys Cys Leu Met Gln Asp Asp Thr Arg Gly Met Phe Met Glu Thr  
 130 135 140  
 Thr Val Phe Cys Thr Ser Glu Asp Gly Leu Val Ser Gly Phe Gly Arg  
 145 150 155 160  
 Thr Val Asn Asp Asn Leu Ile Asp Gly Asn Cys Thr Pro Gln Asn Pro  
 165 170 175  
 Pro Gln Lys Lys Lys Val Ser Leu Leu Glu

180

185

&lt;210&gt; 5985

&lt;211&gt; 737

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5985

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 737

&lt;210&gt; 5986

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5986

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 Gln Gln Val Cys Ser Lys Gln Leu Pro Pro Cys Asn Leu Ser Lys Glu  
 20 25 30  
 Asp Leu Leu Gln Asn Pro Tyr Phe Ser Lys Leu Leu Leu Asn Leu Ser  
 35 40 45  
 Gln His Val Asp Glu Ser Gly Leu Ser Leu Thr Leu Ala Lys Glu Gln  
 50 55 60  
 Ala Gln Ala Trp Lys Glu Val Arg Leu His Lys Thr Thr Trp Leu Arg  
 65 70 75 80  
 Ser Glu Ile Leu His Arg Val Ile Gln Glu Leu Leu Val Asp Tyr Tyr  
 85 90 95  
 Val Lys Ile Gln Asp Thr Asn Val Thr Ser Glu Asp Lys Lys Phe His



	100		105		110
Glu Thr Leu	Glu Gln Arg	Leu Leu Val Thr	Glu Leu Met Arg	Leu Leu	
	115		120		125
Gly Pro Ser	Gln Glu Arg	Glu Ile Pro Pro	Leu Leu Gly	Leu Glu Lys	
	130		135		140
Ala Asp Leu	Leu Glu Leu Met	Pro Leu Ser	Glu Val Gly Gly	Glu Ile	
	145		150		155
Leu Glu Pro	Asn Lys				160
	165				

&lt;210&gt; 5987

&lt;211&gt; 1444

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5987

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1140

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 1444

<210> 5988

<211> 216

<212> PRT

<213> Homo sapiens

<400> 5988

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		20						25					30		
Thr	Pro	Ser	Glu	Arg	Gly	Met	Thr	Tyr	Asp	Ala	Leu	His	Val	Phe	Asp
		35				40						45			
Trp	Ile	Lys	Ala	Arg	Ser	Gly	Asp	Asn	Pro	Val	Tyr	Ile	Trp	Gly	His
	50					55					60				
Ser	Leu	Gly	Thr	Gly	Val	Ala	Thr	Ile	Trp	Cys	Gly	Ala	Ser	Val	Ser
	65				70				75					80	
Glu	Thr	Pro	Pro	Asp	Ala	Leu	Ile	Leu	Glu	Ser	Pro	Phe	Thr	Asn	Ile
			85						90					95	
Arg	Glu	Glu	Ala	Lys	Ser	His	Pro	Phe	Ser	Val	Ile	Tyr	Arg	Tyr	Phe
			100					105					110		
Pro	Gly	Phe	Asp	Trp	Phe	Phe	Leu	Asp	Pro	Ile	Thr	Ser	Ser	Gly	Ile
		115					120					125			
Lys	Phe	Ala	Asn	Asp	Glu	Asn	Val	Lys	His	Ile	Ser	Cys	Pro	Leu	Leu
	130					135					140				
Ile	Leu	His	Ala	Glu	Asp	Asp	Pro	Val	Val	Pro	Phe	Gln	Leu	Gly	Arg
	145				150					155				160	
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&lt;210&gt; 5995

&lt;211&gt; 1528

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5995

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<211> 757

<212> PRT

<213> Homo sapiens

<400> 6000

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Asp Leu Ala Ser Glu Asp Leu Glu Ala Asn Glu Ile Val Ser Leu Leu
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Thr Trp Val Leu Asn Thr Tyr Thr Ser Thr Glu Met Met Arg Asn Val
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Glu Leu Ala Pro Glu Val Asp Val Gly Thr Leu Glu Pro Leu Leu Ser
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Ala Ser Gly Phe Gly Glu Asp Val Asp Gly Tyr Cys Asp Thr Ile Val
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Ala Val Ala Glu Val Ile Lys Leu Thr Asp Pro Ser Leu Leu Tyr Leu
      675      680      685
Glu Val Ser Thr Leu Val Ser Lys Tyr Pro Asp Ile Arg Asp Asp His
      690      695      700
Ile Gly Ala Leu Leu Ala Val Arg Gly Asp Ala Ser Arg Asp Met Lys

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705		710		715		720
Gln Thr Ile Met Glu Thr Leu Glu Gln Gly Pro Ala Gln Ala Ser Pro						
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Ser Tyr Val Pro Leu Phe Lys Asp Ile Val Val Pro Ser Leu Asn Val						
	740		745		750	
Ala Lys Leu Leu Lys						
755						

&lt;210&gt; 6001

&lt;211&gt; 2490

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6001

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&lt;210&gt; 6002

&lt;211&gt; 263

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6002

Met	Leu	Leu	Ala	Trp	Val	Gln	Ala	Phe	Leu	Val	Ser	Asn	Met	Leu	Leu
1					5					10				15	
Ala	Glu	Ala	Tyr	Gly	Ser	Gly	Gly	Cys	Phe	Trp	Asp	Asn	Gly	His	Leu

20 25 30  
 Tyr Arg Glu Asp Gln Thr Ser Pro Ala Pro Gly Leu Arg Cys Leu Asn  
 35 40 45  
 Trp Leu Asp Ala Gln Ser Gly Leu Ala Ser Ala Pro Val Ser Gly Ala  
 50 55 60  
 Gly Asn His Ser Tyr Cys Arg Asn Pro Asp Glu Asp Pro Ala Gly Pro  
 65 70 75 80  
 Trp Cys Tyr Val Ser Gly Glu Ala Gly Val Pro Glu Lys Arg Pro Cys  
 85 90 95  
 Glu Asp Leu Arg Cys Pro Glu Thr Thr Ser Gln Ala Leu Pro Ala Phe  
 100 105 110  
 Thr Thr Glu Ile Gln Glu Ala Ser Glu Gly Pro Gly Ala Asp Glu Val  
 115 120 125  
 Gln Val Phe Ala Pro Ala Asn Ala Leu Pro Ala Arg Ser Glu Ala Ala  
 130 135 140  
 Ala Val Gln Pro Val Ile Gly Ile Ser Gln Arg Val Arg Met Asn Ser  
 145 150 155 160  
 Lys Glu Lys Lys Asp Leu Gly Thr Leu Gly Tyr Val Leu Gly Ile Thr  
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 Met Met Val Ile Ile Ala Ile Gly Ala Gly Ile Ile Leu Gly Tyr  
 180 185 190  
 Ser Tyr Lys Arg Gly Lys Asp Leu Lys Glu Gln His Asp Gln Lys Val  
 195 200 205  
 Cys Glu Arg Glu Met Gln Arg Ile Thr Leu Pro Leu Ser Ala Phe Thr  
 210 215 220  
 Asn Pro Thr Cys Glu Ile Val Asp Glu Lys Thr Val Val Val His Thr  
 225 230 235 240  
 Ser Gln Thr Pro Val Asp Pro Gln Glu Gly Thr Thr Pro Leu Met Gly  
 245 250 255  
 Gln Ala Gly Thr Pro Gly Ala  
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&lt;210&gt; 6003

&lt;211&gt; 3107

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6003

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&lt;210&gt; 6004

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6004

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 35 40 45  
 Gly Gly Thr Glu Thr Thr Ser Met Leu Xaa Val Pro Gly Val Thr Gln  
 50 55 60  
 Ser Pro Arg Gly Glu Arg Gly Ser Gly Pro His Ala Val Gln Gly Val  
 65 70 75 80  
 Ala Leu Pro Xaa Arg Gly Ser Pro Arg Gly Pro Gly Pro Arg Ala Pro  
 85 90 95  
 Gly Arg Gly Arg Asp Cys Gly Gly Asn Gly Pro Ala Glu Ala Pro Ala



	100		105		110
Pro	Leu	Ser	Ser	Ala	Phe
	115		120		125
Glu	Gly	Gly	Pro	Ser	Ser
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			Arg	Cys	Thr

&lt;210&gt; 6005

&lt;211&gt; 1735

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6005

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&lt;210&gt; 6006

&lt;211&gt; 200

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6006

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 35 40 45  
 Leu Lys Gly Glu Lys Gly Glu Ser Ala Ser Gln Pro Thr Gly Glu Pro  
 50 55 60  
 Gly Ser Ala His Ser Glu Pro Gly Pro Pro Gly Pro Pro Gly Pro Pro  
 65 70 75 80  
 Gly Pro Met Gly Leu Gln Gly Ile Gln Gly Pro Lys Gly Leu Asp Gly  
 85 90 95  
 Ala Lys Gly Glu Lys Gly Ala Ser Gly Glu Arg Gly Ser Ser Gly Leu  
 100 105 110  
 Pro Gly Pro Val Gly Pro Pro Gly Leu Ile Gly Leu Pro Gly Thr Lys  
 115 120 125  
 Gly Glu Lys Gly Arg Pro Gly Glu Pro Gly Leu Asp Gly Phe Pro Gly  
 130 135 140  
 Pro Arg Gly Glu Lys Gly Asp Arg Ser Glu Arg Gly Glu Lys Gly Glu  
 145 150 155 160  
 Arg Gly Val Pro Gly Arg Lys Gly Val Lys Gly Gln Lys Gly Glu Pro  
 165 170 175  
 Gly Pro Pro Gly Leu Asp Gln Pro Cys Pro Val Gly Pro Asp Gly Leu  
 180 185 190  
 Pro Val Pro Gly Cys Trp His Lys  
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&lt;210&gt; 6007

&lt;211&gt; 693

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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<211> 214

<212> PRT

<213> Homo sapiens

<400> 6008  
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 Gly Lys Met Val Lys Lys Val Cys Pro Cys Asn Gln Leu Cys Arg Thr  
 35 40 45  
 Ser Ser Thr Asn Thr Val Gly Ala Thr Val Asn Ser Gln Ala Ala Gln  
 50 55 60  
 Ala Gln Pro Pro Ala Met Thr Ser Ser Arg Lys Gly Thr Phe Thr Asp  
 65 70 75 80  
 Asp Leu His Lys Leu Val Asp Asn Trp Ala Arg Asp Ala Met Asn Leu  
 85 90 95  
 Ser Gly Arg Arg Gly Ser Lys Gly His Met Asn Tyr Glu Gly Pro Gly  
 100 105 110  
 Met Ala Arg Lys Phe Ser Ala Pro Gly Gln Leu Cys Ile Ser Met Thr  
 115 120 125  
 Ser Asn Leu Gly Gly Ser Ala Pro Ile Ser Ala Ala Ser Ala Thr Ser  
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 145 150 155 160  
 Pro Ala Thr Pro Phe Gly Ala Gln Trp Ser Gly Thr Gly Gly Pro Ala

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Pro	Gln	Pro	Leu	Gly	Gln	Phe	Gln	Pro	Val	Gly	Thr	Ala	Ser	Leu	Gln						
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Asn	Phe	Asn	Ile	Ser	Asn	Leu	Gln	Lys	Ser	Ile	Ser	Asn	Pro	Pro	Gly						
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Ser	Asn	Leu	Arg	Thr	Thr																
210																					

<210> 6009

<211> 1570

<212> DNA

<213> Homo sapiens

**<400> 6009**

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 1440  
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<210> 6010

<211> 468

<212> PRT

<213> Homo sapiens

<400> 6010

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 Asp Thr Val Tyr Asp Val Val Val Ser Gly Gly Gly Leu Val Gly Ala  
 35 40 45  
 Ala Met Ala Cys Ala Leu Gly Tyr Asp Ile His Phe His Asp Lys Lys  
 50 55 60  
 Ile Leu Leu Leu Glu Ala Gly Pro Lys Lys Val Leu Glu Lys Leu Ser  
 65 70 75 80  
 Glu Thr Tyr Ser Asn Arg Val Ser Ser Ile Ser Pro Gly Ser Ala Thr  
 85 90 95  
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 Arg Ala Phe Arg Arg Met Gln Val Trp Asp Ala Cys Ser Glu Ala Leu  
 115 120 125  
 Ile Met Phe Asp Lys Asp Asn Leu Asp Asp Met Gly Tyr Ile Val Glu  
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 Asp Arg Val Thr Val Leu Tyr Arg Ser Lys Ala Ile Arg Tyr Thr Trp  
 165 170 175  
 Pro Cys Pro Phe Pro Met Ala Asp Ser Ser Pro Trp Val His Ile Thr  
 180 185 190  
 Leu Gly Asp Gly Ser Thr Phe Gln Thr Lys Leu Leu Ile Gly Ala Asp  
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 Gly His Asn Ser Gly Val Arg Gln Ala Val Gly Ile Gln Asn Val Ser  
 210 215 220  
 Trp Asn Tyr Asp Gln Ser Ala Val Val Ala Thr Leu His Leu Ser Glu  
 225 230 235 240  
 Ala Thr Glu Asn Asn Val Ala Trp Gln Arg Phe Leu Pro Ser Gly Pro  
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260 265 270  
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 Asp Phe Ile Asp Thr Ala Gly Ala Met Leu Gln Tyr Pro Val Ser Leu  
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 Ala Ala Glu Tyr Val Arg Pro Arg Val Ala Leu Ile Gly Asp Ala Ala  
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 His Arg Val His Pro Leu Ala Gly Gln Gly Val Asn Met Gly Phe Gly  
 370 375 380  
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 385 390 395 400  
 Lys Asp Leu Gly Ser Val Ser His Leu Thr Gly Tyr Glu Thr Glu Arg  
 405 410 415  
 Gln Arg His Asn Thr Ala Leu Leu Ala Ala Thr Asp Leu Leu Lys Arg  
 420 425 430  
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 <212> DNA  
 <213> Homo sapiens

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 360  
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<210> 6012

<211> 219

<212> PRT

<213> Homo sapiens

<400> 6012

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			20					25					30		
Lys	Glu	Pro	Gly	Asp	Ser	Ala	Gln	Phe	Thr	Lys	Ala	Ile	Ala	Ile	Ile
			35				40					45			
Phe	Pro	Phe	Leu	Tyr	Leu	Leu	Glu	Lys	Val	Glu	Cys	Thr	Pro	Ser	Gln
			50			55				60					
Glu	His	Leu	Lys	His	Gln	Thr	Val	Tyr	Arg	Leu	Leu	Lys	Cys	Ala	Pro
					70				75					80	
Arg	Gly	Lys	Asn	Gly	Phe	Thr	Pro	Leu	His	Met	Ala	Val	Asp	Lys	Asp
			85					90					95		
Thr	Thr	Asn	Val	Gly	Arg	Tyr	Pro	Val	Gly	Arg	Phe	Pro	Ser	Leu	His
			100					105					110		
Val	Val	Lys	Val	Leu	Leu	Asp	Cys	Gly	Ala	Asp	Pro	Asp	Ser	Arg	Asp
			115					120				125			
Phe	Asp	Asn	Asn	Thr	Pro	Leu	His	Ile	Ala	Ala	Gln	Asn	Asn	Cys	Pro
			130			135					140				
Ala	Ile	Met	Asn	Ala	Leu	Ile	Glu	Ala	Gly	Ala	His	Met	Asp	Ala	Thr
					150				155					160	
Asn	Ala	Phe	Lys	Lys	Thr	Ala	Tyr	Glu	Leu	Leu	Asp	Glu	Lys	Leu	Leu

	165		170		175
Ala Arg Gly Thr Met Gln Pro Phe Asn Tyr Val Thr Leu Gln Cys Leu					
	180		185		190
Ala Ala Arg Ala Leu Asp Lys Asn Lys Ile Pro Tyr Lys Gly Phe Ile					
	195		200		205
Pro Glu Asp Leu Glu Ala Phe Ile Glu Leu His					
	210		215		

&lt;210&gt; 6013

&lt;211&gt; 2204

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6013

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&lt;210&gt; 6014

&lt;211&gt; 182

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6014

Arg Gln His Asn Lys Asp Lys Pro Phe Lys Cys His Asn Cys His Arg  
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 Ala Tyr Thr Asp Ala Ala Ser Leu Glu Val His Leu Ser Thr His Thr  
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 Val Lys His Ala Lys Val Tyr Thr Cys Thr Ile Cys Ser Arg Ala Tyr  
 35 40 45  
 Thr Ser Glu Thr Tyr Leu Met Lys His Met Arg Lys His Asn Pro Pro  
 50 55 60  
 Asp Leu Gln Gln Gln Val Gln Ala Ala Ala Ala Ala Val Ala  
 65 70 75 80  
 Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala  
 85 90 95  
 Gln Ala Gln Ala Gln Ala Ser Gln Ala Ser Gln Gln Gln Gln Gln

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      100      105      110
Gln Gln Gln Gln Gln Gln Gln Gln Gln Pro Pro Pro His Phe Gln Ser
      115      120      125
Pro Gly Ala Ala Pro Gln Gly Gly Gly Gly Asp Ser Asn Pro Asn
      130      135      140
Pro Pro Pro Gln Cys Ser Phe Asp Leu Thr Pro Tyr Lys Thr Ala Glu
      145      150      155      160
His His Lys Asp Ile Cys Leu Thr Val Thr Thr Ser Thr Ile Gln Val
      165      170      175
Glu His Leu Ala Ser Ser
      180

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&lt;210&gt; 6015

&lt;211&gt; 612

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6015

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480
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600
acctggcatg gc
612

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&lt;210&gt; 6016

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6016

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Pro Arg Ser Pro Glu Arg Leu Pro Ala Ser Gln Gly Ile Ser Arg Gly
      20      25      30
Arg Cys Lys Leu Asn Asn Asn Ser Trp Ser Gly Leu Thr Cys Pro Thr
      35      40      45
Leu Ser Met Ser Cys Asn Gln Asn Lys Leu Asp Ser Pro Gly Arg Ala

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50                      55                      60  
 Ser His Gly Ser Ser Leu Pro Phe Asn Gln Asp Ser Gln Lys Pro Ala  
 65                      70                      75                      80  
 Phe Tyr Asn Ile Phe Leu Lys Lys Ser His Ser Phe Gln Ser Leu Leu  
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 Gln Tyr Ile

<210> 6017

<211> 2091

<212> DNA

<213> Homo sapiens

<400> 6017

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<210> 6018  
 <211> 537  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Asn Ser Gln Gln Ala Ala Asn Val Leu Ser Gly Ala Cys Gly Leu Gln  
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 Arg Gly Asp Arg Val Ala Val Met Leu Pro Arg Val Pro Glu Trp Trp  
 65 70 75 80  
 Leu Val Ile Leu Gly Cys Ile Arg Ala Gly Leu Ile Phe Met Pro Gly  
 85 90 95  
 Thr Ile Gln Met Lys Ser Thr Asp Ile Leu Tyr Arg Leu Gln Met Ser  
 100 105 110  
 Lys Ala Lys Ala Ile Val Ala Gly Asp Glu Val Ile Gln Glu Val Asp  
 115 120 125  
 Thr Val Ala Ser Glu Cys Pro Ser Leu Arg Ile Lys Leu Leu Val Ser

130 135 140  
 Glu Lys Ser Cys Asp Gly Trp Leu Asn Phe Lys Lys Leu Leu Asn Glu  
 145 150 155 160  
 Ala Ser Thr Thr His His Cys Val Glu Thr Gly Ser Gln Glu Ala Ser  
 165 170 175  
 Ala Ile Tyr Phe Thr Ser Gly Thr Ser Gly Leu Pro Lys Met Ala Glu  
 180 185 190  
 His Ser Tyr Ser Ser Leu Gly Leu Lys Ala Lys Met Asp Ala Gly Trp  
 195 200 205  
 Thr Gly Leu Gln Ala Ser Asp Ile Met Trp Thr Ile Ser Asp Thr Gly  
 210 215 220  
 Trp Ile Leu Asn Ile Leu Gly Ser Leu Leu Glu Ser Trp Thr Leu Gly  
 225 230 235 240  
 Ala Cys Thr Phe Val His Leu Leu Pro Lys Phe Asp Pro Leu Val Ile  
 245 250 255  
 Leu Lys Thr Leu Ser Ser Tyr Pro Ile Lys Ser Met Met Gly Ala Pro  
 260 265 270  
 Ile Val Tyr Arg Met Leu Leu Gln Gln Asp Leu Ser Ser Tyr Lys Phe  
 275 280 285  
 Pro His Leu Gln Asn Cys Leu Ala Gly Gly Glu Ser Leu Leu Pro Glu  
 290 295 300  
 Thr Leu Glu Asn Trp Arg Ala Gln Thr Gly Leu Asp Ile Arg Glu Phe  
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 Tyr Gly Gln Thr Glu Thr Gly Leu Thr Cys Met Val Ser Lys Thr Met  
 325 330 335  
 Lys Ile Lys Pro Gly Tyr Met Gly Thr Ala Ala Ser Cys Tyr Asp Val  
 340 345 350  
 Gln Val Ile Asp Asp Lys Gly Asn Val Leu Pro Pro Gly Thr Glu Gly  
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 370 375 380  
 Gly Tyr Val Glu Asn Pro Asp Lys Thr Ala Ala Asn Ile Arg Gly Asp  
 385 390 395 400  
 Phe Trp Leu Leu Gly Asp Arg Gly Ile Lys Asp Glu Asp Gly Tyr Phe  
 405 410 415  
 Gln Phe Met Gly Arg Ala Asp Asp Ile Ile Asn Ser Ser Gly Tyr Arg  
 420 425 430  
 Ile Gly Pro Ser Glu Val Glu Asn Ala Leu Met Lys His Pro Ala Val  
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 450 455 460  
 Val Lys Ala Phe Val Val Leu Ala Ser Gln Phe Leu Ser His Asp Pro  
 465 470 475 480  
 Glu Gln Leu Thr Lys Glu Leu Gln Gln His Val Lys Ser Val Thr Ala  
 485 490 495  
 Pro Tyr Lys Tyr Pro Arg Lys Ile Glu Phe Val Leu Asn Leu Pro Lys  
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 Lys Met Ser Gly Lys Ala Arg Ala Gln  
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&lt;210&gt; 6019

&lt;211&gt; 3002

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6019

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&lt;400&gt; 6020

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385

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&lt;213&gt; Homo sapiens

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&lt;211&gt; 1014

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&lt;213&gt; Homo sapiens

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&lt;210&gt; 6026

&lt;211&gt; 496

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6026

Met Asp Gln Asp Tyr Glu Arg Arg Leu Leu Arg Gln Ile Val Ile Gln

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Pro Ala Ser Ser Pro Val Ser Ser Pro Ser Lys His Gly Asp Arg Phe			
35	40	45	
Ile Pro Ser Arg Ala Gly Ala Asn Trp Ser Val Asn Phe His Arg Ile			
50	55	60	
Asn Glu Asn Glu Lys Ser Pro Ser Gln Asn Arg Lys Ala Lys Asp Ala			
65	70	75	80
Thr Ser Asp Asn Gly Lys Asp Gly Leu Ala Tyr Ser Ala Leu Leu Lys			
85	90	95	
Asn Glu Leu Leu Gly Ala Gly Ile Glu Lys Val Gln Asp Pro Gln Thr			
100	105	110	
Glu Asp Arg Arg Leu Gln Pro Ser Thr Pro Glu Lys Lys Gly Leu Phe			
115	120	125	
Thr Tyr Ser Leu Ser Thr Lys Arg Ser Ser Pro Asp Asp Gly Asn Asp			
130	135	140	
Val Ser Pro Tyr Ser Leu Ser Pro Val Ser Asn Lys Ser Gln Lys Leu			
145	150	155	160
Leu Arg Ser Pro Arg Lys Pro Thr Arg Lys Ile Ser Lys Ile Pro Phe			
165	170	175	
Lys Val Leu Asp Ala Pro Glu Leu Gln Asp Asp Phe Tyr Leu Asn Leu			
180	185	190	
Val Asp Trp Ser Ser Leu Asn Val Leu Ser Val Gly Leu Gly Thr Cys			
195	200	205	
Val Tyr Leu Trp Ser Ala Cys Thr Ser Gln Val Thr Arg Leu Cys Asp			
210	215	220	
Leu Ser Val Glu Gly Asp Ser Val Thr Ser Val Gly Trp Ser Glu Arg			
225	230	235	240
Gly Asn Leu Val Ala Val Gly Thr His Lys Gly Phe Val Gln Ile Trp			
245	250	255	
Asp Ala Ala Ala Gly Lys Lys Leu Ser Met Leu Glu Gly His Thr Ala			
260	265	270	
Arg Val Gly Ala Leu Ala Trp Asn Ala Glu Gln Leu Ser Ser Gly Ser			
275	280	285	
Arg Asp Arg Met Ile Leu Gln Arg Asp Ile Arg Thr Pro Pro Leu Gln			
290	295	300	
Ser Glu Arg Arg Leu Gln Gly His Arg Gln Glu Val Cys Gly Leu Lys			
305	310	315	320
Trp Ser Thr Asp His Gln Leu Leu Ala Ser Gly Gly Asn Asp Asn Lys			
325	330	335	
Leu Leu Val Trp Asn His Ser Ser Leu Ser Pro Val Gln Gln Tyr Thr			
340	345	350	
Glu His Leu Ala Ala Val Lys Ala Ile Ala Trp Ser Pro His Gln His			
355	360	365	
Gly Leu Leu Ala Ser Gly Gly Gly Thr Ala Asp Arg Cys Ile Arg Phe			
370	375	380	
Trp Asn Thr Leu Thr Gly Gln Pro Leu Gln Cys Ile Asp Thr Gly Ser			
385	390	395	400
Gln Val Cys Asn Leu Ala Trp Ser Lys His Ala Asn Glu Leu Val Ser			
405	410	415	
Thr His Gly Tyr Ser Gln Asn Gln Ile Leu Val Trp Lys Tyr Pro Ser			
420	425	430	
Leu Thr Gln Val Ala Lys Leu Thr Gly His Ser Tyr Arg Val Leu Tyr			

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Leu Ala Met Ser Pro Asp Gly Glu Ala Ile Val Thr Gly Ala Gly Asp
      450              455              460
Glu Thr Leu Arg Phe Trp Asn Val Phe Ser Lys Thr Arg Ser Thr Lys
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Val Lys Trp Glu Ser Val Ser Val Leu Asn Leu Phe Thr Arg Ile Arg
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 <212> DNA  
 <213> Homo sapiens

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<210> 6028  
 <211> 75  
 <212> PRT  
 <213> Homo sapiens

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Ala Gly Tyr Ser Val Val Glu Met Asn Ala Ser Asp Asp Arg Ser Pro
20     25     30
Glu Val Phe Arg Thr Arg Ile Glu Ala Ala Thr Gln Met Glu Ser Gly
35     40     45
Leu Gly Ala Ala Gly Lys Pro Asn Cys Leu Val Ile Asp Glu Ile Asp
50     55     60
Gly Ala Pro Val Val Gly Ser Leu Met Pro Gly
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<210> 6029  
 <211> 1350  
 <212> DNA  
 <213> Homo sapiens

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120

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&lt;210&gt; 6030

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6030

Met Gly Thr Ser Lys Thr Ser Asp Trp Met Ala Ser Pro Ser Glu Ala

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Met Trp Ala Glu Glu Leu Arg Ala Ala His Pro Arg Trp Leu His Ile

20 25 30

His Thr Gly Thr Ser His Pro Pro Arg Phe Gly Leu Ala Glu Thr Ser

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Phe His Ser Ser Lys Ala Ser Met Val Phe Ala Ser Pro Gln Glu Val
      50              55              60
Ser Gln Glu Glu Phe Leu Asp Gly Val Leu Met Ser Ala Glu Asn Ser
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Ala Gln Ser Trp Arg Leu Gln Thr Gln Leu Ser Trp Gly Arg Ala Val
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Ala Pro Ser

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<211> 1316
<212> DNA
<213> Homo sapiens

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1140

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<210> 6032

<211> 321

<212> PRT

<213> Homo sapiens

<400> 6032

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 Tyr Pro Leu Thr Leu Phe Val Pro Gly Leu Leu Tyr Leu Leu Gln Arg  
 85 90 95  
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 100 105 110  
 Trp Glu Tyr Ala Met Met Tyr Val Gly Ser Leu Val Val Ile Ile Cys  
 115 120 125  
 Leu Ser Phe Phe Leu Leu Ser Ser Trp Asp Phe Ile Pro Ala Val Tyr  
 130 135 140  
 Gly Phe Ile Leu Ser Val Pro Asp Leu Thr Pro Asn Ile Gly Leu Phe  
 145 150 155 160  
 Trp Tyr Phe Phe Ala Glu Met Phe Glu His Phe Ser Leu Phe Phe Val  
 165 170 175  
 Cys Val Phe Gln Ile Asn Val Phe Phe Tyr Thr Ile Pro Leu Ala Ile  
 180 185 190  
 Lys Leu Lys Glu His Pro Ile Phe Phe Met Phe Ile Gln Ile Ala Val  
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 210 215 220  
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<211> 5157  
<212> DNA  
<213> Homo sapiens

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 Val Glu Lys Ala Gly Pro Glu Met Asp Lys Arg Leu Ala Thr Glu Phe

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Val Val Leu Thr Tyr Gln Ala Glu Arg Met Pro Glu Gln Ile Arg Leu
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Thr Gly Phe Leu Ala Gln Pro Met Lys Gln Ala Trp Ala Thr Asp Asp
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Val Ala Gln Ile Tyr Asp Lys Cys Ile Thr Glu Leu Glu Gln His Leu
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His Leu Leu Val Leu Lys Ala Leu Gln Asp Gly Arg Ala Tyr Gly Ser
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Pro Trp Cys Asn Lys Gln Ile Thr Arg Cys Leu Ile Glu Cys Arg Asp
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Glu Tyr Lys Tyr Asn Val Glu Ala Val Glu Leu Leu Ile Arg Asn His
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          450          455          460
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Leu Phe His Thr Ile Glu Thr Leu Met Arg Ile Asn Ala His Ser Arg
          500          505          510
Gly Asn Ala Pro Glu Gly Leu Pro Gln Leu Met Glu Val Val Arg Ser
          515          520          525
Asn Tyr Glu Ala Met Ile Asp Arg Ala His Gly Gly Pro Asn Phe Met
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Val Gly Gln Val Glu Leu Leu Glu Arg Lys Met His Gln Gln Gly Ile
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Leu Lys Thr Asp Asp Leu Ile Thr Arg Phe Phe Arg Leu Cys-Thr Glu
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Met Cys Val Glu Ile Ser Tyr Arg Ala Gln Ala Glu Gln Gln His Asn
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Pro Ala Ala Asn Pro Thr Met Ile Arg Ala Lys Cys Tyr His Asn Leu
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Gln Leu Arg Tyr Pro Asn Ser His Thr His Tyr Phe Ser Cys Thr Met
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<210> 6039  
 <211> 1130  
 <212> DNA  
 <213> Homo sapiens

<400> 6039  
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 120  
 ctgcgtgggg agccattgtg ggcccagaat gtggtgcccg aggccgaagg ggaagacgat  
 180  
 ccggccgggtg agggccaggc tgggaggcta cccctgctgc cctgcgcccg tgcctacgtg  
 240  
 agcccgcggg cgcccttcta ccggcctctg gctccggagc tgcgggcacg ccagctggag  
 300  
 ctgggcgcgg agcacgcgtt gctgctggac gctgctggcc aggtgttctc ctggggcggg  
 360  
 ggcaggcatg gacagctggg ccatgggacc ctggaggcag agctggagcc acggctgttg  
 420  
 gaggcgttgc agggcctagt catggctgag gtggccgcgg ggggctggca ttctgtgtgt  
 480  
 gtgagtgaga ctggggatat ttatatctgg ggctggaatg aatcagggca gctggccctg  
 540  
 cccaccagga acctggcaga ggatggagag actgtcgcaa gggaagccac agaactgaat  
 600  
 gaagatgggt ctcaggtgaa gagaacgggt ggggctgagg atggagcccc tgcctcctc  
 660  
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 720  
 gccagctgtg gatcccgcca cacagctgtg gtgacacgaa caggggagct ctacacctgg  
 780  
 ggctggggta aatatggaca gctgggccac gaggacacca ccagcttgga tcggcctcgc  
 840  
 cgtgtggaat actttgtaga taagcaactc caagtaaagg ctgtcacctg tgggccgtgg  
 900  
 aacacctacg tgtatgctgt ggagaaaggg aagagctgac atgtgtacgt atatgtatat  
 960  
 gcaaacacctg tgagaccccc attcaggtca aggaaaacca ttgcctgcac cccaagggcc  
 1020  
 ccatatttgc cctctcccat cacagtcctg cctttcacc tcaagcacgg tcctaaactt  
 1080  
 gtctgcactt tagaaacacc tggagagcat tgaaaactct gctgcctaag  
 1130

<210> 6040  
 <211> 312  
 <212> PRT  
 <213> Homo sapiens

<400> 6040  
 Xaa Gly Leu Ala Ile Leu Phe Ile His Ala Ala Ala Trp Ala Ser Glu  
 1 5 10 15  
 Gly Leu Leu Ala Val Leu Arg Ala Gly Pro Gly Pro Glu Ala Leu Leu

```

      20      25      30
Gln Val Trp Ala Ala Glu Ser Ala Leu Arg Gly Glu Pro Leu Trp Ala
  35      40      45
Gln Asn Val Val Pro Glu Ala Glu Gly Glu Asp Asp Pro Ala Gly Glu
  50      55      60
Ala Gln Ala Gly Arg Leu Pro Leu Leu Pro Cys Ala Arg Ala Tyr Val
  65      70      75      80
Ser Pro Arg Ala Pro Phe Tyr Arg Pro Leu Ala Pro Glu Leu Arg Ala
      85      90      95
Arg Gln Leu Glu Gly Ala Glu His Ala Leu Leu Leu Asp Ala Ala
      100      105      110
Gly Gln Val Phe Ser Trp Gly Gly Arg His Gly Gln Leu Gly His
      115      120      125
Gly Thr Leu Glu Ala Glu Leu Glu Pro Arg Leu Leu Glu Ala Leu Gln
      130      135      140
Gly Leu Val Met Ala Glu Val Ala Ala Gly Gly Trp His Ser Val Cys
      145      150      155      160
Val Ser Glu Thr Gly Asp Ile Tyr Ile Trp Gly Trp Asn Glu Ser Gly
      165      170      175
Gln Leu Ala Leu Pro Thr Arg Asn Leu Ala Glu Asp Gly Glu Thr Val
      180      185      190
Ala Arg Glu Ala Thr Glu Leu Asn Glu Asp Gly Ser Gln Val Lys Arg
      195      200      205
Thr Gly Gly Ala Glu Asp Gly Ala Pro Ala Pro Phe Ile Ala Val Gln
      210      215      220
Pro Phe Pro Ala Leu Leu Asp Leu Pro Met Gly Ser Asp Ala Val Lys
      225      230      235      240
Ala Ser Cys Gly Ser Arg His Thr Ala Val Val Thr Arg Thr Gly Glu
      245      250      255
Leu Tyr Thr Trp Gly Trp Gly Lys Tyr Gly Gln Leu Gly His Glu Asp
      260      265      270
Thr Thr Ser Leu Asp Arg Pro Arg Arg Val Glu Tyr Phe Val Asp Lys
      275      280      285
Gln Leu Gln Val Lys Ala Val Thr Cys Gly Pro Trp Asn Thr Tyr Val
      290      295      300
Tyr Ala Val Glu Lys Gly Lys Ser
      305      310

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<210> 6041  
 <211> 291  
 <212> DNA  
 <213> Homo sapiens

<400> 6041  
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 60  
 gaagaggaaa ggcttcgacg ggaggaagag gaaaggagac ggatagaaga agaaaggctt  
 120  
 cggttgagc agcaaaagca gcagataatg gcagctttaa actcccagac tgccgtgcag  
 180  
 ttccagcagt atgcagccca acagtatcca gggaactacg aacagcagca aattctcatc  
 240  
 cgccagttgc aggagcaaca ctatcagcag tacatgcagc agttgtatca c  
 291

<210> 6042  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 6042  
 Thr Arg Glu Gly Glu Glu Arg Glu Arg Leu Gln Lys Glu Glu Glu Lys  
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 20 25 30  
 Arg Arg Ile Glu Glu Glu Arg Leu Arg Leu Glu Gln Gln Lys Gln Gln  
 35 40 45  
 Ile Met Ala Ala Leu Asn Ser Gln Thr Ala Val Gln Phe Gln Gln Tyr  
 50 55 60  
 Ala Ala Gln Gln Tyr Pro Gly Asn Tyr Glu Gln Gln Ile Leu Ile  
 65 70 75 80  
 Arg Gln Leu Gln Glu Gln His Tyr Gln Gln Tyr Met Gln Gln Leu Tyr  
 85 90 95  
 His

<210> 6043  
 <211> 558  
 <212> DNA  
 <213> Homo sapiens

<400> 6043  
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 120  
 ttcaaggtgt cttgtacaac ccaactgggga aacaggatct gggaccggtg cgggcacatt  
 180  
 ctccctggccc agcacagggg cgggtgccacc cacattcggc ccgggtcttg cctaatacat  
 240  
 gttttggtaa acactcggtc agagcaccct ctgttttttc cagtcccgaa gtcctccgca  
 300  
 ggaatccaca ccccgcccc acccctctcg ggacacggat tcaatgtccc tggtggtgca  
 360  
 tctggccttt tcggcctgtg atgtgattcg agcgggtgcta tctttaacct cgggcagggg  
 420  
 tgtttctccc cgtcgacgtt gctcagataa cagtcctgca attccatggg ggtggcggca  
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 558

<210> 6044  
 <211> 152  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 6044

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Met Leu Cys Gln Thr Pro Gly Ala Ala Thr Pro Met Glu Leu Gln Asp
 1           5           10           15
Cys Tyr Leu Ser Asn Val Asp Gly Gly Glu His Pro Cys Pro Arg Leu
 20           25           30
Lys Ile Ala Pro Leu Glu Ser His His Arg Pro Lys Arg Pro Asp Asp
 35           40           45
Pro Pro Gly Thr Leu Asn Pro Cys Pro Glu Arg Gly Gly Ala Gly Val
 50           55           60
Trp Ile Pro Ala Gly Ser Phe Gly Thr Gly Lys Asn Arg Gly Cys Ser
 65           70           75           80
Asp Arg Val Phe Thr Lys Thr Cys Ile Arg Gln Asp Pro Gly Arg Met
 85           90           95
Trp Val Ala Pro Pro Leu Cys Trp Ala Arg Arg Met Cys Pro His Arg
100           105           110
Ser Gln Ile Leu Phe Pro Gln Trp Val Val Gln Asp Thr Leu Asn Phe
115           120           125
Cys Met Asn Trp Asp Ile Gln Asn Ser Leu Glu Gln Pro Pro Pro Ser
130           135           140
Thr Leu Cys Leu Asp Ile Ser Tyr
145           150

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&lt;210&gt; 6045

&lt;211&gt; 1916

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6045

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aaggacgctc tgcgccagca gctccgctcg gcgcgagagg tgattgcagt ggtcatggac
120
gtgttcacag acatcgacat cttcagagac ctgcaagaaa tatgcaggaa acagggagtt
180
gctgtgtata tccttctgga ccaggctctc ctctctcaat ttctggatat gtgcatggat
240
ctgaaaagttc atcctgaaca ggaaaagtta atgacagttc ggactatcac aggaaatcac
300
tactatgcaa ggtcaggaac taagattatt gggaaaggttc acgaaaagtt cacgttgatt
360
gatggcatcc gcgtggcaac aggctcctac agttttacat ggacggatgg caaattaaac
420
agcagtaact tggttaattct gtctggccaa gtggttgaac actttgatct ggagttccga
480
atcctgtatg ccagtcctca gcccatcagc cccaaactcc tgtctcactt ccagagcagc
540
aacaagtttg atcacctcac caaccgaaaa ccacagtcca aggagctcac cctgggcaac
600
ctgctgcgga tgcggctggc taggctgtca agtactccca ggaaggcgga cctggaccca
660
gagatgcccg cagagggcaa ggcagagcgc aagccccatg actgtgagtc ctctactgtt
720
agtgaggaag actacttcag cagccacagg gacgagctcc agagcagaaa ggccattgac
780

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gctgccactc aaacagagcc aggagaggag atgccagggc tgagtgtgag tgagggtggga  
 840  
 acacaaacca gcatcaccac agcatgtgct ggtaccaga ctgcagtcac caccaggata  
 900  
 gcaagctctc aaaccacgat ttggtccaga tgcaccacta ctgagactga catggatgag  
 960  
 aacattctct ttcttcgagg aactcaatct acagaagggt caccagtctc aaaaatgtct  
 1020  
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 1080  
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 1140  
 aagtacctgg gacccccca cctggaactg tacttgagtg actcacttag aaacttgaac  
 1200  
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 1260  
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 1320  
 agagttaatt tgettgctgt tagagatgta gcactttatc ctccctatca gtaactgtct  
 1380  
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 1440  
 aaaaatatct tatgtcccta attgccttcc tttacctga ctttgtcacc ttgtgtgtct  
 1500  
 ttgaattctt taggctgcat attatcttac atgctttgtt ttgtcatgta tataccagg  
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 1680  
 aagattataa tactgtatct ttactatacc tttctgtgtg ttagatacaa ataccattat  
 1740  
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 1800  
 gcatttttct taggttgat gctcttctgt tttaaagggt tgaatcacca gcatttttgt  
 1860  
 gatcaaaatc ctatttagaa aaaataaaac tactttctgt ttaaaaaaaa aacaaa  
 1916

&lt;210&gt; 6046

&lt;211&gt; 457

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6046

Thr	Arg	Val	Glu	Thr	His	Phe	Gln	Pro	Arg	Gly	Ala	Gly	Glu	Gly	Gly
1				5				10					15		
Pro	Tyr	Gly	Cys	Lys	Asp	Ala	Leu	Arg	Gln	Gln	Leu	Arg	Ser	Ala	Arg
			20					25					30		
Glu	Val	Ile	Ala	Val	Val	Met	Asp	Val	Phe	Thr	Asp	Ile	Asp	Ile	Phe
		35				40					45				
Arg	Asp	Leu	Gln	Glu	Ile	Cys	Arg	Lys	Gln	Gly	Val	Ala	Val	Tyr	Ile
	50					55				60					
Leu	Leu	Asp	Gln	Ala	Leu	Leu	Ser	Gln	Phe	Leu	Asp	Met	Cys	Met	Asp

```

65          70          75          80
Leu Lys Val His Pro Glu Gln Glu Lys Leu Met Thr Val Arg Thr Ile
      85          90          95
Thr Gly Asn Ile Tyr Tyr Ala Arg Ser Gly Thr Lys Ile Ile Gly Lys
      100        105        110
Val His Glu Lys Phe Thr Leu Ile Asp Gly Ile Arg Val Ala Thr Gly
      115        120        125
Ser Tyr Ser Phe Thr Trp Thr Asp Gly Lys Leu Asn Ser Ser Asn Leu
      130        135        140
Val Ile Leu Ser Gly Gln Val Val Glu His Phe Asp Leu Glu Phe Arg
145          150          155          160
Ile Leu Tyr Ala Gln Ser Lys Pro Ile Ser Pro Lys Leu Leu Ser His
      165        170        175
Phe Gln Ser Ser Asn Lys Phe Asp His Leu Thr Asn Arg Lys Pro Gln
      180        185        190
Ser Lys Glu Leu Thr Leu Gly Asn Leu Leu Arg Met Arg Leu Ala Arg
      195        200        205
Leu Ser Ser Thr Pro Arg Lys Ala Asp Leu Asp Pro Glu Met Pro Ala
      210        215        220
Glu Gly Lys Ala Glu Arg Lys Pro His Asp Cys Glu Ser Ser Thr Val
225          230          235          240
Ser Glu Glu Asp Tyr Phe Ser Ser His Arg Asp Glu Leu Gln Ser Arg
      245        250        255
Lys Ala Ile Asp Ala Ala Thr Gln Thr Glu Pro Gly Glu Glu Met Pro
      260        265        270
Gly Leu Ser Val Ser Glu Val Gly Thr Gln Thr Ser Ile Thr Thr Ala
      275        280        285
Cys Ala Gly Thr Gln Thr Ala Val Ile Thr Arg Ile Ala Ser Ser Gln
      290        295        300
Thr Thr Ile Trp Ser Arg Ser Thr Thr Thr Gln Thr Asp Met Asp Glu
305          310          315          320
Asn Ile Leu Phe Pro Arg Gly Thr Gln Ser Thr Glu Gly Ser Pro Val
      325        330        335
Ser Lys Met Ser Val Ser Arg Ser Ser Ser Leu Lys Ser Ser Ser Ser
      340        345        350
Val Ser Ser Gln Gly Ser Val Ala Ser Ser Thr Gly Ser Pro Ala Ser
      355        360        365
Ile Arg Thr Thr Asp Phe His Asn Pro Gly Tyr Pro Lys Tyr Leu Gly
      370        375        380
Thr Pro His Leu Glu Leu Tyr Leu Ser Asp Ser Leu Arg Asn Leu Asn
385          390          395          400
Lys Glu Arg Gln Phe His Phe Ala Gly Ile Arg Ser Arg Leu Asn His
      405        410        415
Met Leu Ala Met Leu Ser Arg Arg Thr Leu Phe Thr Glu Asn His Leu
      420        425        430
Gly Leu His Ser Gly Asn Phe Ser Arg Val Asn Leu Leu Ala Val Arg
      435        440        445
Asp Val Ala Leu Tyr Pro Ser Tyr Gln
      450        455

```

&lt;210&gt; 6047

&lt;211&gt; 773

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6047

ggatcctgac ccccgagctt gcgccccctcg ggccctccat tcagtcctcg gccgacagcg  
 60  
 ccaccgtgtg gccacagcgt ctcttagcgg cctccttacc taggggtcgg gtgagctcct  
 120  
 gatgggaaat gggggatctc atcgcttggt agtagaggag actttggggg gaaagtgatg  
 180  
 gaggatgggg caagggatcc ggtgtccaac tctgtgtgtc cctgcagctc ccgtagccca  
 240  
 gcagggaaga tgaccttctg gcccctaagc aggcggaagg caggtggccg ccgccggagc  
 300  
 aatggtgcaa acagctcttc tccagtgtgg tccccgtgct gctgggggac ccagaggagg  
 360  
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 420  
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 480  
 tcggcaatgc tgacatgac cagccggacc tgacgccact gcagccaagc ctggatgact  
 540  
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 600  
 acttcccaga gccccccaac ttcagccccg tggttgactc cctcttcage agtgggacct  
 660  
 tgggcccaga ggtgcccccg gcttctctcg ccatgaccca cctctctgga cacagccgtc  
 720  
 tgcaggctcg gaacagctgc cctgccccctg tgcctgtac taaatgaatt gcg  
 773

&lt;210&gt; 6048

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6048

Met Val Lys Arg Val Ser Glu Met Ser Asp Lys Lys Gln Leu Arg Ser  
 1 5 10 15  
 Arg Ser Cys Arg Pro Pro Gly Ser Ser Ser Gly Ser Pro Ser Ser Thr  
 20 25 30  
 Gly Thr Thr Leu Glu Lys Ser Cys Leu His His Cys Ser Gly Gly Gly  
 35 40 45  
 His Leu Pro Ser Ala Cys Leu Gly Ala Arg Arg Ser Ser Ser Leu Leu  
 50 55 60  
 Gly Tyr Gly Ser Cys Arg Asp Thr Gln Ser Trp Thr Pro Asp Pro Leu  
 65 70 75 80  
 Pro His Pro Pro Ser Leu Ser Pro Gln Ser Leu Leu Tyr Ser Gln Ala  
 85 90 95  
 Met Arg Ser Pro Ile Ser His Gln Glu Leu Thr Arg Pro Leu Gly Lys  
 100 105 110  
 Glu Ala Ala Arg Arg Arg Cys Gly His Thr Val Ala Leu Ser Ala Arg  
 115 120 125  
 Asp

&lt;210&gt; 6049

&lt;211&gt; 479

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6049

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accggttttt cttccccag tccttcagct gctgctgctg ctcaggaggt cagatctgcc
60
actgatggta ataccagcac cactccgccc acctctgcca agaagagaaa gttaaacaga
120
agcagcagta gcagcagtaa cagtagtaac gagagagaag accttgattc cacctcttcc
180
tcctcttcca ctctctcttt acaaccagg gattcggcat ccccttcaac ctcgtccttc
240
tgctgggggg ttccagtggc tgcttcacgc cactaccga tacagaagaa gctgcgtttt
300
gaagacaccc tggagtttgt agggtttgat gcgaagatgg ctgaggaatc ctctctctcc
360
tcctctctcat ctccaccaac tgctgcaaca tctcaggagc agcaacttaa aaataagagt
420
atattaatct cttctgtggg ttcggtgcat catgcagacg ggctagccga atcttctac
479

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&lt;210&gt; 6050

&lt;211&gt; 159

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6050

```

Thr Gly Phe Ser Ser Pro Ser Pro Ser Ala Ala Ala Ala Gln Glu
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Val Arg Ser Ala Thr Asp Gly Asn Thr Ser Thr Thr Pro Pro Thr Ser
20     25     30
Ala Lys Lys Arg Lys Leu Asn Ser Ser Ser Ser Ser Ser Asn Ser
35     40     45
Ser Asn Glu Arg Glu Asp Phe Asp Ser Thr Ser Ser Ser Ser Thr
50     55     60
Pro Pro Leu Gln Pro Arg Asp Ser Ala Ser Pro Ser Thr Ser Ser Phe
65     70     75     80
Cys Leu Gly Val Ser Val Ala Ala Ser Ser His Val Pro Ile Gln Lys
85     90     95
Lys Leu Arg Phe Glu Asp Thr Leu Glu Phe Val Gly Phe Asp Ala Lys
100    105    110
Met Ala Glu Glu Ser Ser Ser Ser Ser Ser Ser Ser Pro Thr Ala
115    120    125
Ala Thr Ser Gln Glu Gln Gln Leu Lys Asn Lys Ser Ile Leu Ile Ser
130    135    140
Ser Val Gly Ser Val His His Ala Asp Gly Leu Ala Glu Ser Ser
145    150    155

```

&lt;210&gt; 6051

&lt;211&gt; 2404

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



<400> 6051  
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ttacagcagc gtcgatttaa tggctcagac ggagggggtt catggtctcc tatggatgat  
180  
gaactttctg cacagccaca ggttatgaaa ttattagatt cactccgaga gcaatatacc  
240  
cgctaccagg aagttttagt gcaacgtagc aagcgcacac agttagaaga gattcaacag  
300  
aaggtaatgc aggtggtgaa ctggctagaa gggcctggat cagaacaact aagagcccag  
360  
tgggggcattg gagactccat tagggcctcc caggccctac agcagaaaac cgaagagatt  
420  
gagagccagc acagtgaatg gtttgcatgt tatgtggaac ttaacagca aattgcagca  
480  
ctcttgaatg ctggcgatga ggaagatctt gtggaactaa agtcactgca gcaacaactt  
540  
agtgtatgtt gttatcgaca ggccagtcag ctggaattta ggcaaatctt cttacaagca  
600  
gctcttgaat ttcattggtg tgcccaagat ttgtctcagc agttggatgg cttattaggg  
660  
atgttgtgctg tagatgtagc accagctgat ggagcatcga ttcagcaaac tttaaaactg  
720  
cttgaagaga agctgaaaag tgttgatgtg ggattgcaag gtttgcgtga aaaagggtcaa  
780  
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840  
attgaaaata aagaaaatgt ggaccacata caaggagtga tggaagatat gcagcttaga  
900  
aaacaaagat gtgaagacat ggttagatgtg cgaagggttaa agatgcttca gatggtgcag  
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1020  
gctctgctta agactcacat cagattgggc gatgatgctc aagaaacgaa agttttgctg  
1080  
gaaaagcata gaaaatttgt tgatgttgca cagagcactt atgactatgg caggcagttg  
1140  
ctacaggcca cagttgtgtt atgccagtct ttgcgtgca cttctcggtc atctggggat  
1200  
acacttcttc gactgaacag agtatggaaa caatttcaa tagcatctga agagagagta  
1260  
catagattgg aaatggctat tgcatttcac tcaaatgctg aaaagatttt gcaggactgt  
1320  
ccagaagagc ctgaagctat taatgatgag gagcaatttg atgaaattga agcagttggg  
1380  
aaatcacttt tggatagatt aactgttcca gtagtttacc ctgatggaac cgaacaatat  
1440  
tttgggagtc caagtacat ggcttctact gcagaaaaca tcagagacag gatgaaacta  
1500  
gttaatctca aaaggcagca gctgagacat cctgaaatgg tgaccacaga gagctaatag  
1560

ctaccageta cctacagatt tgcagttcat aatcccgcat gttgtcaaca tactacagca  
 1620  
 ttagccacca caccttaaga tgcatttcac agccaaaata agtctcattt cttttcatga  
 1680  
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 1860  
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 1920  
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 1980  
 cctcaaaaatt ttactttgta attcttcaga attgattatt tttattgtgt caatacagag  
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 2160  
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 2220  
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 2280  
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 2400  
 caac  
 2404

&lt;210&gt; 6052

&lt;211&gt; 518

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6052

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&lt;210&gt; 6053

&lt;211&gt; 3257

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;210&gt; 6056

&lt;211&gt; 285

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6056

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Val Ser Lys Arg Lys Cys Ile Val Trp Gly Val Ala Phe Leu Ser Asp
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Gly Thr Ile Ile Ser Val Asp Ser Ala Gly Lys Val Gln Phe Trp Asp
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3924

&lt;210&gt; 6058

&lt;211&gt; 500

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6058

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Phe Glu Lys His Ser Glu Asn Phe Ala Trp Thr Glu Asn Arg Tyr Asp
35     40     45
Val Asn Arg Arg Arg His Asn Ser Ser Asp Gly Phe Asp Ser Ala Ile
50     55     60
Gly Arg Pro Asn Gly Gly Asn Phe Gly Arg Lys Glu Lys Asn Gly Trp
65     70     75     80
Arg Thr His Gly Arg Asn Gly Thr Glu Asn Ile Asn His Arg Gly Gly
85     90     95
Tyr His Gly Gly Ser Ser Arg Ser Arg Ser Ser Ile Phe His Ala Gly
100    105    110
Lys Ser Gln Gly Leu His Glu Asn Asn Ile Pro Asp Asn Glu Thr Gly
115    120    125
Arg Lys Glu Asp Lys Arg Glu Arg Lys Gln Phe Glu Ala Glu Asp Phe
130    135    140
Pro Ser Leu Asn Pro Glu Tyr Glu Arg Glu Pro Asn His Asn Lys Ser
145    150    155    160
Leu Ala Ala Gly Val Trp Gly Leu His Ala Gln Thr His Thr Tyr Pro
165    170    175
Thr Lys Lys Ile Ser Gln Ala Pro Leu Leu Glu Tyr Pro Pro Asn Pro
180    185    190
Lys Ser Arg Ala Pro Arg Met Leu Val Ile Lys Lys Gly Asn Thr Lys
195    200    205
Asp Leu Gln Leu Ser Gly Phe Pro Val Val Gly Asn Leu Pro Ser Gln
210    215    220
Pro Val Lys Asn Gly Thr Gly Pro Ser Val Tyr Lys Gly Leu Val Pro
225    230    235    240
Lys Pro Ala Ala Pro Pro Thr Lys Pro Thr Gln Trp Lys Ser Gln Thr
245    250    255
Lys Glu Asn Lys Val Gly Thr Ser Phe Pro His Glu Ser Thr Phe Gly
260    265    270
Val Gly Asn Phe Asn Ala Phe Lys Ser Thr Ala Lys Asn Phe Ser Pro
275    280    285
Ser Thr Asn Ser Val Lys Glu Cys Asn Arg Ser Asn Ser Ser Ser Pro
290    295    300
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Arg Thr Asp Lys Lys Ser Glu Phe Leu Lys Ala Leu Lys Arg Asp Arg
325    330    335
Val Glu Glu Glu His Glu Asp Glu Ser Arg Ala Gly Ser Glu Lys Asp
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Asp Asp Ser Phe Asn Leu His Asn Ser Asn Ser Thr His Gln Glu Arg
355    360    365
Asp Ile Asn Arg Asn Phe Asp Glu Asn Glu Ile Pro Gln Glu Asn Gly
370    375    380
Asn Ala Ser Val Ile Ser Gln Gln Ile Ile Arg Ser Ser Thr Phe Pro
385    390    395    400
Gln Thr Asp Val Leu Ser Ser Ser Leu Glu Ala Glu His Arg Leu Leu
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Lys Glu Met Gly Trp Gln Glu Asp Ser Glu Asn Asp Glu Thr Cys Ala

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420                      425                      430  
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<210> 6059  
 <211> 1442  
 <212> DNA  
 <213> Homo sapiens

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 780  
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<210> 6060

<211> 313

<212> PRT

<213> Homo sapiens

<400> 6060

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Ile	Ser	Tyr	Thr	Ile	Thr	Ile	Phe	Gly	Asn	Val	Ser	Ile	Met	Met	Val
	35					40					45				
Cys	Ile	Leu	Asp	Pro	Lys	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Thr
	50				55					60					
Asn	Leu	Ser	Ile	Leu	Asp	Leu	Cys	Tyr	Thr	Thr	Thr	Val	Pro	His	
65				70				75					80		
Met	Leu	Val	Asn	Ile	Gly	Cys	Asn	Lys	Lys	Thr	Ile	Ser	Tyr	Ala	Gly
		85						90					95		
Cys	Val	Ala	His	Leu	Ile	Ile	Phe	Leu	Ala	Leu	Gly	Ala	Thr	Glu	Cys
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Leu	Leu	Leu	Ala	Val	Met	Ser	Phe	Asp	Arg	Tyr	Val	Ala	Val	Cys	Arg
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Pro	Leu	His	Tyr	Val	Val	Ile	Met	Asn	Tyr	Trp	Phe	Cys	Leu	Arg	Met
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Phe	Phe	Cys	Glu	Val	Pro	Ala	Leu	Leu	Lys	Leu	Ser	Cys	Ala	Asp	Thr
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Lys	Pro	Ile	Glu	Ala	Glu	Leu	Phe	Phe	Phe	Ser	Val	Leu	Ile	Leu	Leu
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Val	Leu	Lys	Ile	Arg	Ser	Ala	Glu	Gly	Arg	Gln	Lys	Ala	Phe	Gly	Thr
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<210> 6061  
 <211> 1582  
 <212> DNA  
 <213> Homo sapiens

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1200

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<210> 6062

<211> 226

<212> PRT

<213> Homo sapiens

<400> 6062

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 Arg Pro Arg Asp Leu Leu Gln Arg Tyr Asp Ser Lys Pro Ile Val Asp  
 35 40 45  
 Leu Ile Gly Ala Met Glu Thr Gln Ser Glu Pro Ser Glu Leu Glu Leu  
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 Asp Asp Val Val Ile Thr Asn Pro His Ile Glu Ala Ile Leu Glu Asn  
 65 70 75 80  
 Glu Asp Trp Ile Glu Asp Ala Ser Gly Leu Met Ser His Cys Ile Ala  
 85 90 95  
 Ile Leu Lys Ile Cys His Thr Leu Thr Glu Lys Leu Val Ala Met Thr  
 100 105 110  
 Met Gly Ser Gly Ala Lys Met Lys Thr Ser Ala Ser Val Ser Asp Ile  
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 145 150 155 160  
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 165 170 175  
 Cys His Leu Thr Gly Gly Leu Asp Trp Ile Asp Gln Ser Leu Ser Ala  
 180 185 190  
 Ala Glu Glu His Leu Glu Val Leu Arg Glu Ala Ala Leu Ala Ser Glu  
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<210> 6063

<211> 2286



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6063

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&lt;210&gt; 6064

&lt;211&gt; 233

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6064

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 35 40 45  
 Asp Ala Ala Leu Ala Leu Gln Ala Arg Gly Cys Ser Val Lys Ile Trp  
 50 55 60  
 Thr Ala His Tyr Asp Pro Gly His Cys Phe Ala Glu Ser Arg Glu Leu  
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 Pro Val Arg Cys Ala Gly Asp Trp Leu Pro Arg Gly Leu Gly Trp Gly  
 85 90 95  
 Gly Arg Gly Ala Ala Val Cys Ala Tyr Val Arg Met Val Phe Leu Ala  
 100 105 110  
 Leu Tyr Val Leu Phe Leu Ala Asp Glu Glu Phe Asp Val Val Val Cys  
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 Asp Gln Val Ser Ala Cys Ile Pro Val Phe Arg Leu Ala Arg Arg Arg  
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 Lys Lys Ile Leu Phe Tyr Cys His Phe Pro Asp Leu Leu Leu Thr Lys

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                                  180                      185                      190  
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<210> 6065

<211> 2084

<212> DNA

<213> Homo sapiens

<400> 6065

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&lt;210&gt; 6066

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6066

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 35 40 45  
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&lt;210&gt; 6067

&lt;211&gt; 406

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6067

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&lt;210&gt; 6068

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6068

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35          40          45
Ser Arg Ser Ser Glu Pro Pro Ala Cys Pro Arg His Trp Pro Cys Pro
50          55          60
Pro Gly Leu Pro Phe Gly Gln Gly Ala Val Ala Arg Ala Ala Pro Cys
65          70          75          80
Pro Ala Tyr Ser His Ser Ala Val Gly Arg Pro Pro Leu Pro Arg Lys
85          90          95
Arg Gly Ala Val Ser Ser Gly Arg Leu His Arg Arg Gly Thr Gly Ala
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Met Trp Trp Glu Gly
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&lt;210&gt; 6069

&lt;211&gt; 456

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6069

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180

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 100 105 110  
 Pro Leu Cys Gly Phe Arg Leu Leu Thr Thr Leu Pro Ser Pro Pro Leu  
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 <212> PRT  
 <213> Homo sapiens

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&lt;210&gt; 6076

&lt;211&gt; 601

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6076

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 Glu Val Gly Leu Ala Leu Lys Asp Leu Ala Lys Gln Tyr Ser Asp Arg  
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 Leu Glu Cys Cys Glu Asn Glu Val Glu Lys Val Ile Glu Glu Ile Arg  
 50 55 60  
 Cys Lys Ala Ile Glu Arg Gly Thr Gly Asn Asp Asn Tyr Arg Thr Thr  
 65 70 75 80  
 Gly Ile Ala Thr Ile Glu Val Phe Leu Pro Pro Arg Leu Lys Lys Asp  
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 Arg Lys Asn Leu Leu Glu Thr Arg Leu His Ile Thr Gly Arg Glu Leu  
 100 105 110  
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180      185      190
Leu Glu Ile Leu Ala Lys Arg Ala Ala Glu Thr Val Val Asp Pro Glu
195      200      205
Met Thr Pro Tyr Leu Asp Ile Ala Asn Gln Thr Gly Arg Ser Ile Arg
210      215      220
Ile Pro Pro Ser Glu Arg Lys Ala Leu Met Leu Ala Met Gly Tyr His
225      230      235
Glu Lys Gly Arg Ala Phe Leu Lys Arg Lys Glu Tyr Gly Ile Ala Leu
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Pro Cys Leu Leu Asp Ala Asp Lys Tyr Phe Cys Glu Cys Cys Arg Glu
260      265      270
Leu Leu Asp Thr Val Asp Asn Tyr Ala Val Leu Gln Leu Asp Ile Val
275      280      285
Trp Cys Tyr Phe Arg Leu Glu Gln Leu Glu Cys Leu Asp Asp Ala Glu
290      295      300
Lys Lys Leu Asn Leu Ala Gln Lys Cys Phe Lys Asn Cys Tyr Gly Glu
305      310      315
Asn His Gln Arg Leu Val His Ile Lys Gly Asn Cys Gly Lys Glu Lys
325      330      335
Val Leu Phe Leu Arg Leu Tyr Leu Leu Gln Gly Ile Arg Asn Tyr His
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Ser Gly Asn Asp Val Glu Ala Tyr Glu Tyr Leu Asn Arg His Val Ser
355      360      365
Ser Leu Lys Ser Tyr Ile Leu Ile His Gln Lys Trp Thr Ile Cys Cys
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Ser Trp Gly Leu Leu Pro Arg Lys Xaa Arg Leu Gly Leu Arg Ala Cys
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450      455      460
Ser Asn Pro Glu Thr Asp Asn Arg Gln Glu Ser Pro Ser Gln Glu Asn
465      470      475
Ile Asp Arg Leu Val Tyr Met Gly Phe Asp Ala Leu Val Ala Glu Ala
485      490      495
Ala Leu Arg Val Phe Arg Gly Asn Val Gln Leu Ala Ala Gln Thr Leu
500      505      510
Ala His Asn Gly Gly Ser Leu Pro Pro Glu Leu Pro Leu Ser Pro Glu
515      520      525
Asp Ser Leu Ser Pro Pro Ala Thr Ser Pro Ser Asp Ser Ala Gly Thr
530      535      540
Ser Ser Ala Ser Thr Asp Glu Asp Met Glu Thr Glu Ala Val Asn Glu
545      550      555
Ile Leu Glu Asp Ile Pro Glu His Glu Glu Asp Tyr Leu Asp Ser Thr
565      570      575
Leu Glu Asp Glu Glu Ile Ile Ile Ala Glu Tyr Leu Ser Tyr Val Glu
580      585      590
Asn Arg Lys Ser Ala Thr Lys Lys Asn

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595

600

&lt;210&gt; 6077

&lt;211&gt; 2093

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6077

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1380

5260

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 1980  
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 2093

&lt;210&gt; 6078

&lt;211&gt; 213

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6078

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Leu	Arg	Ala	Val	Ser	Gly	Gly	Ser	Gly	Asn	Arg	Ile	Lys	Ala	Arg	Gly
		20						25					30		
Ser	Gly	Arg	Glu	Gly	Ala	Ser	Gly	Pro	Gly	Val	Gly	Pro	His	Ile	Tyr
		35					40					45			
Val	Arg	Glu	Ala	Glu	Asp	Arg	Glu	Leu	Val	Thr	Met	Ala	Gly	Pro	Gln
	50					55					60				
Pro	Leu	Ala	Leu	Gln	Leu	Glu	Gln	Leu	Leu	Asn	Pro	Arg	Pro	Ser	Glu
65				70					75					80	
Ala	Asp	Pro	Glu	Ala	Asp	Pro	Glu	Glu	Ala	Thr	Ala	Ala	Arg	Val	Ile
		85						90					95		
Asp	Arg	Phe	Asp	Glu	Gly	Glu	Asp	Gly	Glu	Gly	Asp	Phe	Leu	Val	Val
		100						105					110		
Gly	Ser	Ile	Arg	Lys	Leu	Ala	Ser	Ala	Ser	Leu	Leu	Asp	Thr	Asp	Lys
		115					120					125			
Arg	Tyr	Cys	Gly	Lys	Thr	Thr	Ser	Arg	Lys	Ala	Trp	Asn	Glu	Asp	His
	130					135				140					
Trp	Glu	Gln	Thr	Leu	Pro	Gly	Ser	Ser	Asp	Glu	Glu	Ile	Ser	Asp	Glu
145				150					155					160	
Glu	Gly	Ser	Gly	Asp	Glu	Asp	Ser	Glu	Gly	Leu	Gly	Leu	Glu	Glu	Tyr
			165				170						175		
Asp	Glu	Asp	Asp	Leu	Gly	Ala	Ala	Glu	Glu	Gln	Glu	Cys	Gly	Asp	Gln

180 185 190  
 Gly Glu Gln Glu Asp Glu Lys Pro Leu Cys Lys Asn Thr Gly Leu Gln  
 195 200 205  
 Cys Pro Glu Tyr Gln  
 210

<210> 6079  
 <211> 651  
 <212> DNA  
 <213> Homo sapiens

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 ggggttacgc tgctgccccct gctgtcgcgc ctggtcggcg cgtggctcaa gctaggaaat  
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<210> 6080  
 <211> 162  
 <212> PRT  
 <213> Homo sapiens

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 20 25 30  
 Gln Leu Gln Gly Gly Arg Phe Leu Met Gly Thr Asn Ser Pro Asp Ser  
 35 40 45  
 Arg Asp Gly Glu Gly Pro Val Arg Glu Ala Thr Val Lys Pro Phe Ala  
 50 55 60  
 Ile Asp Ile Phe Pro Val Thr Asn Lys Asp Phe Arg Asp Phe Val Arg  
 65 70 75 80  
 Glu Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Trp Ser Phe Val  
 85 90 95  
 Phe Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Lys Ala Thr Gln Pro



```

      100      105      110
Met Lys Ser Val Leu Trp Trp Leu Pro Val Glu Lys Ala Phe Trp Arg
      115      120      125
Gln Pro Ala Gly Pro Gly Ser Gly Ile Arg Glu Arg Leu Glu His Pro
      130      135      140
Val Leu His Val Ser Trp Asn Asp Ala Arg Ala Tyr Cys Ala Trp Arg
      145      150      155      160
Gly Lys

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<210> 6081  
 <211> 655  
 <212> DNA  
 <213> Homo sapiens

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<400> 6081
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180
cagaaattga ctgaaattct caatttaaat ggagaagtag cttgccagga ctcaagccat
240
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300
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360
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420
acaagtgaat ataaattgac tatttctgaa tccagtatta gtgaccggct tgtcacattg
480
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agcttagaca atctcttttt aaaagaaggt agacagctga cctatgagaa agtgaacttg
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655

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<210> 6082  
 <211> 218  
 <212> PRT  
 <213> Homo sapiens

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<400> 6082
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Ala Glu Thr Asp Glu Gly Trp Leu Asp Val Val Gln Ser Leu Ile Arg
20      25      30
Val Ile Pro Leu Glu Asp Pro Leu Gly Pro Ala Val Ile Thr Leu Leu
35      40      45
Leu Asp Glu Cys Pro Leu Pro Thr Lys Asp Ala Leu Gln Lys Leu Thr
50      55      60
Glu Ile Leu Asn Leu Asn Gly Glu Val Ala Cys Gln Asp Ser Ser His

```

```

65          70          75          80
Pro Ala Lys His Arg Asn Thr Ser Ala Val Leu Gly Cys Leu Ala Glu
      85          90          95
Lys Leu Ala Gly Pro Ala Ser Ile Gly Leu Leu Ser Pro Gly Ile Leu
      100         105         110
Glu Tyr Leu Leu Gln Cys Leu Lys Leu Gln Ser His Pro Thr Val Met
      115         120         125
Leu Phe Ala Leu Ile Ala Leu Glu Lys Phe Ala Gln Thr Ser Glu Asn
      130         135         140
Lys Leu Thr Ile Ser Glu Ser Ser Ile Ser Asp Arg Leu Val Thr Leu
      145         150         155         160
Glu Ser Trp Ala Asn Asp Pro Asp Tyr Leu Lys Arg Gln Val Gly Phe
      165         170         175
Cys Ala Gln Trp Ser Leu Asp Asn Leu Phe Leu Lys Glu Gly Arg Gln
      180         185         190
Leu Thr Tyr Glu Lys Val Asn Leu Ser Ser Ile Arg Ala Met Leu Asn
      195         200         205
Ser Asn Asp Val Ser Glu Tyr Leu Lys Ile
      210         215

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<210> 6083  
 <211> 358  
 <212> DNA  
 <213> Homo sapiens

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<400> 6083
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120
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180
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240
gatactctga gtccaagcaa ggaaaaaagc agtgacgaca ctacagacgc ccaaatggat
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358

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<210> 6084  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

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<400> 6084
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Ala Asp Asn Asp Phe Thr Asn Glu Arg Leu Thr Ala Leu Gln Glu Lys
20      25      30
Leu Ile Val Glu Gly His Leu Thr Lys Ala Val Glu Glu Thr Lys Leu
35      40      45
Ser Lys Glu Asn Gln Thr Arg Ala Lys Glu Ser Asp Phe Ser Asp Thr
50      55      60
Leu Ser Pro Ser Lys Glu Lys Ser Ser Asp Asp Thr Thr Asp Ala Gln

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ctgtgtgtgc gtatcacact aggggtgcaa gcctctgggt gtgtgtgtgt gtgtgcgtgc  
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 1380  
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 1680  
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 1980  
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 2040  
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<210> 6086  
 <211> 84  
 <212> PRT  
 <213> Homo sapiens

<400> 6086  
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 20 25 30  
 Ile Thr Leu Gly Val Gln Ala Ser Gly Cys Val Cys Val Cys Ala Cys  
 35 40 45  
 Val Cys Val Cys Val Ser Val Cys Val Cys Val Cys Val His Thr Gly  
 50 55 60  
 Gln Pro Pro Tyr Leu Pro Arg Phe Ser Thr Ala Tyr Leu Phe Gln Trp  
 65 70 75 80  
 Asp Ser Thr Val

<210> 6087  
<211> 1506  
<212> DNA  
<213> Homo sapiens

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120  
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<210> 6088  
 <211> 326  
 <212> PRT  
 <213> Homo sapiens

<400> 6088  
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 Pro Gly Asp Leu Leu Ser Ala Arg Leu Leu Ser Gln Glu Lys Arg Ala  
 35 40 45  
 Ala Glu Thr His Phe Gly Phe Glu Thr Val Ser Glu Glu Glu Lys Gly  
 50 55 60  
 Gly Lys Val Tyr Gln Val Phe Glu Ser Val Ala Lys Lys Tyr Asp Val  
 65 70 75 80  
 Met Asn Asp Met Met Ser Leu Gly Ile His Arg Val Trp Lys Asp Leu  
 85 90 95  
 Leu Leu Trp Lys Met His Pro Leu Pro Gly Thr Gln Leu Leu Asp Met  
 100 105 110  
 Ala Gly Gly Thr Gly Asp Ile Ala Phe Arg Phe Leu Asn Tyr Val Gln  
 115 120 125  
 Ser Gln His Gln Arg Lys Gln Lys Arg Gln Leu Arg Ala Gln Gln Asn  
 130 135 140  
 Leu Ser Trp Glu Glu Ile Ala Lys Glu Tyr Gln Asn Glu Glu Asp Ser  
 145 150 155 160  
 Leu Gly Gly Ser Arg Val Val Val Cys Asp Ile Asn Lys Glu Met Leu  
 165 170 175  
 Lys Val Gly Lys Gln Lys Ala Leu Ala Gln Gly Tyr Arg Ala Gly Leu  
 180 185 190  
 Ala Trp Val Leu Gly Asp Ala Glu Glu Leu Pro Phe Asp Asp Asp Lys  
 195 200 205  
 Phe Asp Ile Tyr Thr Ile Ala Phe Gly Ile Arg Asn Val Thr His Ile  
 210 215 220  
 Asp Gln Ala Leu Gln Glu Ala His Arg Val Leu Lys Pro Gly Gly Arg  
 225 230 235 240  
 Phe Leu Cys Leu Glu Phe Ser Gln Val Asn Asn Pro Leu Ile Ser Arg  
 245 250 255  
 Leu Tyr Asp Leu Tyr Ser Phe Gln Val Ile Pro Val Leu Gly Glu Val  
 260 265 270  
 Ile Ala Gly Asp Trp Lys Ser Tyr Gln Tyr Leu Val Glu Ser Ile Arg  
 275 280 285  
 Arg Phe Pro Ser Gln Glu Glu Phe Lys Asp Met Ile Glu Asp Ala Gly  
 290 295 300  
 Phe His Lys Val Thr Tyr Glu Ser Leu Thr Ser Gly Ile Val Ala Ile  
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 His Ser Gly Phe Lys Leu

325

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<211> 4211  
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<213> Homo sapiens

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5269

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 <213> Homo sapiens

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Val Leu Pro Arg Lys Met Ala Thr Pro Gly Ala Val Gln Glu Ser Cys		140
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Ser Pro His Pro Leu Thr Val Asp Thr Gln Pro Glu Gln Ala Pro Gln		155
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Lys Pro Arg Leu Leu Glu Glu Asn Ala Leu Pro Val Leu Gln Val Pro		170
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Thr Gly Ser Gln Lys Leu Val Lys Ile Glu Glu Val Ala Asp Val Ala		200
	205	210
Val Ser Phe Ile Leu Glu Glu Trp Gly His Leu Asp Gln Ser Gln Lys		215
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	235	240
Met Gly Tyr Glu Ser Arg Asp Asn Met Glu Leu Ile Val Lys Gln Ile		245
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Ser Asp Asp Ser Glu Ser His Trp Val Ala Pro Glu His Thr Glu Arg		260
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Ser Val Pro Gln Asp Pro Asp Phe Ala Glu Val Ser Asp Leu Lys Gly		275
	280	285
Met Val Gln Arg Trp Gln Val Asn Pro Thr Val Gly Lys Ser Arg Gln		290
	295	300
Asn Pro Ser Gln Lys Arg Asp Leu Asp Ala Ile Thr Asp Ile Ser Pro		305
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Lys Gln Ser Thr His Gly Glu Arg Gly His Arg Cys Ser Asp Cys Gly		320
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Lys Phe Phe Leu Gln Ala Ser Asn Phe Ile Gln His Arg Arg Ile His		335
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Pro Tyr Lys Cys Gln Val Cys Gly Lys Ala Phe Arg Val Ser Ser His		380
	385	390
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<213> Homo sapiens

<400> 6091
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&lt;210&gt; 6092

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6092

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 Ser Arg His Glu Gly Pro Ser Pro Pro Arg Asp Leu Gly Thr Ser Gly  
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 Pro Ser Arg Ala Ala Ser His Lys Pro Ser Asn Glu Gln Arg Asp Ala  
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6093

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&lt;210&gt; 6094

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6094

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<210> 6096  
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 <212> PRT  
 <213> Homo sapiens

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Thr Cys Ala Ile Cys Arg Val Gln Val Met Val Val Trp Gly Glu Cys
50     55     60
Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn
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<210> 6097  
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&lt;213&gt; Homo sapiens

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 Ala Leu Glu Leu Ser Pro Ser Phe His Gln Lys Asn Trp Gln His Trp  
 65 70 75 80  
 Phe Ser His Ile Gly Asp Trp Cys Val Ser Arg Gln Leu Trp Trp Gly  
 85 90 95  
 His Gln Ile Pro Ala Tyr Leu Val Xaa Xaa Gly Pro Cys Ala Xaa Gly  
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      115      120      125
Glu Leu Ala Ala Glu Leu Thr Gly Arg Gln Gly Ala Glu Pro Thr Leu
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Glu Arg Asp Pro Asp Val Leu Asp Thr Trp Phe Ser Ser Ala Leu Phe
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Pro Phe Ser Ala Leu Gly Trp Pro Gln Glu Thr Pro Asp Leu Ala Arg
      165      170      175
Phe Tyr Pro Leu Ser Leu Leu Glu Thr Gly Ser Asp Leu Leu Leu Phe
      180      185      190
Trp Val Gly Arg Met Val Met Leu Gly Thr Gln Leu Thr Gly Gln Leu
      195      200      205
Pro Phe Ser Lys Val Leu Leu His Pro Met Val Arg Asp Arg Gln Gly
      210      215      220
Arg Lys Met Ser Lys Ser Leu Gly Asn Val Leu Asp Pro Arg Asp Ile
      225      230      235      240
Ile Ser Gly Val Glu Met Gln Leu Leu Gln Glu Lys Leu Arg Ser Gly
      245      250      255
Asn Leu Asp Pro Ala Glu Leu Ala Ile Val Ala Ala Ala Gln Lys Lys
      260      265      270
Asp Phe Pro His Gly Ile Pro Glu Cys Gly Thr Asp Ala Leu Arg Phe
      275      280      285
Thr Leu Cys Ser His Gly Val Gln Ala Gly Asp Leu His Leu Ser Val
      290      295      300
Ser Glu Val Gln Ser Cys Arg His Phe Cys Asn Lys Ile Trp Asn Ala
      305      310      315      320
Leu Arg Phe Ile Leu Asn Ala Leu Gly Glu Lys Phe Val Pro Gln Pro
      325      330      335
Ala Glu Glu Leu Ser Pro Ser Ser Pro Met Asp Ala Trp Ile Leu Ser
      340      345      350
Arg Leu Ala Leu Ala Ala Gln Glu Cys Glu Arg Gly Phe Leu Thr Arg
      355      360      365
Glu Leu Ser Leu Val Thr His Ala Leu His His Phe Trp Leu His Asn
      370      375      380
Leu Cys Asp Val Tyr Leu Glu Ala Val Lys Pro Val Leu Trp His Ser
      385      390      395      400
Pro Arg Pro Leu Gly Pro Pro Gln Val Leu Phe Ser Cys Ala Asp Leu
      405      410      415
Gly Leu Arg Leu Leu Ala Pro Leu Met Pro Phe Leu Ala Glu Glu Leu
      420      425      430
Trp Gln Arg Leu Pro Pro Arg Pro Gly Cys Pro Pro Ala Pro Ser Ile
      435      440      445
Ser Val Ala Pro Tyr Pro Ser Ala Cys Ser Leu Glu His Trp Arg Gln
      450      455      460
Pro Glu Leu Glu Arg Arg Phe Ser Arg Val Gln Glu Val Val Gln Val
      465      470      475      480
Leu Arg Ala Leu Arg Ala Thr Tyr Gln Leu Thr Lys Ala Arg Pro Arg
      485      490      495
Val Leu Leu Gln Ser Ser Glu Pro Gly Asp Gln Gly Leu Phe Glu Ala
      500      505      510
Phe Leu Glu Pro Leu Gly Thr Leu Gly Tyr Cys Gly Ala Val Gly Leu
      515      520      525
Leu Pro Pro Gly Thr Ala Ala Pro Ser Gly Trp Ala Gln Ala Pro Leu
      530      535      540
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<210> 6099
<211> 3957
<212> DNA
<213> Homo sapiens
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5281

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1260  
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1320  
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 3957

&lt;210&gt; 6100

&lt;211&gt; 1102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6100

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 Leu Pro Pro Pro Ala Pro Gly Ser Pro Ala Ala Pro Ala Ala Val Ser  
 20 25 30  
 Pro Ala Ala Gly Gln Pro Arg Pro Pro Ala Pro Ala Ser Arg Gly Pro

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Met Pro Ala Arg Ile Gly Tyr Tyr Glu Ile Asp Arg Thr Ile Gly Lys
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Gly Asn Phe Ala Val Val Lys Arg Ala Thr His Leu Val Thr Lys Ala
  65      70      75      80
Lys Val Ala Ile Lys Ile Ile Asp Lys Thr Gln Leu Asp Glu Glu Asn
      85      90      95
Leu Lys Lys Ile Phe Arg Glu Val Gln Ile Met Lys Met Leu Cys His
  100      105      110
Pro His Ile Ile Arg Leu Tyr Gln Val Met Glu Thr Glu Arg Met Ile
  115      120      125
Tyr Leu Val Thr Glu Tyr Ala Ser Gly Gly Glu Ile Phe Asp His Leu
  130      135      140
Val Ala His Gly Arg Met Ala Glu Lys Glu Ala Arg Arg Lys Phe Lys
  145      150      155      160
Gln Ile Val Thr Ala Val Tyr Phe Cys His Cys Arg Asn Ile Val His
      165      170      175
Arg Asp Leu Lys Ala Glu Asn Leu Leu Leu Asp Ala Asn Leu Asn Ile
      180      185      190
Lys Ile Ala Asp Phe Gly Phe Ser Asn Leu Phe Thr Pro Gly Gln Leu
  195      200      205
Leu Lys Thr Trp Cys Gly Ser Pro Pro Tyr Ala Ala Pro Glu Leu Phe
  210      215      220
Glu Gly Lys Glu Tyr Asp Gly Pro Lys Val Asp Ile Trp Ser Leu Gly
  225      230      235      240
Val Val Leu Tyr Val Leu Val Cys Gly Ala Leu Pro Phe Asp Gly Ser
      245      250      255
Thr Leu Gln Asn Leu Arg Ala Arg Val Leu Ser Gly Lys Phe Arg Ile
      260      265      270
Pro Phe Phe Met Ser Thr Glu Cys Glu His Leu Ile Arg His Met Leu
  275      280      285
Val Leu Asp Pro Asn Lys Arg Leu Ser Met Glu Gln Ile Cys Lys His
  290      295      300
Lys Trp Met Lys Leu Gly Asp Ala Asp Pro Asn Phe Asp Arg Leu Ile
  305      310      315      320
Ala Glu Cys Gln Gln Leu Lys Glu Glu Arg Gln Val Asp Pro Leu Asn
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Glu Asp Val Leu Leu Ala Met Glu Asp Met Gly Leu Asp Lys Glu Gln
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Thr Leu Gln Ala Glu Gln Ala Gly Thr Ala Met Asn Ile Ser Val Pro
  355      360      365
Gln Val Gln Leu Ile Asn Pro Glu Asn Gln Ile Val Glu Pro Asp Gly
  370      375      380
Thr Leu Asn Leu Asp Ser Asp Glu Gly Glu Glu Pro Ser Pro Glu Ala
  385      390      395      400
Leu Val Arg Tyr Leu Ser Met Arg Arg His Thr Val Gly Val Ala Asp
      405      410      415
Pro Arg Thr Glu Val Met Glu Asp Leu Gln Lys Leu Leu Pro Gly Phe
      420      425      430
Pro Gly Val Asn Pro Gln Ala Pro Phe Leu Gln Val Ala Pro Asn Val
  435      440      445
Asn Phe Met His Asn Leu Leu Pro Met Gln Asn Leu Gln Pro Thr Gly
  450      455      460
Gln Leu Glu Tyr Lys Glu Gln Ser Leu Leu Gln Pro Pro Thr Leu Gln

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 Leu Leu Asn Gly Met Gly Pro Leu Gly Arg Arg Ala Ser Asp Gly Gly  
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 Ala Asn Ile Gln Leu His Ala Gln Gln Leu Leu Lys Arg Pro Arg Gly  
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 Pro Ser Pro Leu Val Thr Met Thr Pro Ala Val Pro Ala Val Thr Pro  
                          515                    520                    525  
 Val Asp Glu Glu Ser Ser Asp Gly Glu Pro Asp Gln Glu Ala Val Gln  
                          530                    535                    540  
 Ser Ser Thr Tyr Lys Asp Ser Asn Thr Leu His Leu Pro Thr Glu Arg  
 545                    550                    555                    560  
 Phe Ser Pro Val Arg Arg Phe Ser Asp Gly Ala Ala Ser Ile Gln Ala  
                          565                    570                    575  
 Phe Lys Ala His Leu Glu Lys Met Gly Asn Asn Ser Ser Ile Lys Gln  
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 Leu Gln Gln Glu Cys Glu Gln Leu Gln Lys Met Tyr Gly Gly Gln Ile  
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 Gln Glu Gln His His Gln Ile Leu Gln Gln Gln Ile Gln Asp Ser Ile  
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 Cys Pro Pro Gln Pro Ser Pro Pro Leu Gln Ala Ala Cys Glu Asn Gln  
                          645                    650                    655  
 Pro Ala Leu Leu Thr His Gln Leu Gln Arg Leu Arg Ile Gln Pro Ser  
                          660                    665                    670  
 Ser Pro Pro Pro Asn His Pro Asn Asn His Leu Phe Arg Gln Pro Ser  
                          675                    680                    685  
 Asn Ser Pro Pro Pro Met Ser Ser Ala Met Ile Gln Pro His Gly Ala  
                          690                    695                    700  
 Ala Ser Ser Ser Gln Phe Gln Gly Leu Pro Ser Arg Ser Ala Ile Phe  
 705                    710                    715                    720  
 Gln Gln Gln Pro Glu Asn Cys Ser Ser Pro Pro Asn Val Ala Leu Thr  
                          725                    730                    735  
 Cys Leu Gly Met Gln Gln Pro Ala Gln Ser Gln Gln Val Thr Ile Gln  
                          740                    745                    750  
 Val Gln Glu Pro Val Asp Met Leu Ser Asn Met Pro Gly Thr Ala Ala  
                          755                    760                    765  
 Gly Ser Ser Gly Arg Gly Ile Ser Ile Ser Pro Ser Ala Gly Gln Met  
                          770                    775                    780  
 Gln Met Gln His Arg Thr Asn Leu Met Ala Thr Leu Ser Tyr Gly His  
 785                    790                    795                    800  
 Arg Pro Leu Ser Lys Gln Leu Ser Ala Asp Ser Ala Glu Ala His Ser  
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 Leu Asn Val Asn Arg Phe Ser Pro Ala Asn Tyr Asp Gln Ala His Leu  
                          820                    825                    830  
 His Pro His Leu Phe Ser Asp Gln Ser Arg Gly Ser Pro Ser Ser Tyr  
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 Ser Pro Ser Thr Gly Val Gly Phe Ser Pro Thr Gln Ala Leu Lys Val  
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 Pro Pro Leu Asp Gln Phe Pro Thr Phe Pro Pro Ser Ala His Gln Gln  
 865                    870                    875                    880  
 Pro Pro His Tyr Thr Thr Ser Ala Leu Gln Gln Ala Leu Leu Ser Pro  
                          885                    890                    895  
 Thr Pro Pro Asp Tyr Thr Arg His Gln Gln Val Pro His Ile Leu Gln

900 905 910  
 Gly Leu Leu Ser Pro Arg His Ser Leu Thr Gly His Ser Asn Ile Arg  
 915 920 925  
 Leu Pro Pro Thr Glu Phe Ala Gln Leu Ile Lys Arg Gln Gln Gln  
 930 935 940  
 Arg Gln Gln Gln Gln Gln Gln Gln Gln Gln Tyr Gln Glu Leu  
 945 950 955 960  
 Phe Arg His Met Asn Gln Gly Asp Ala Gly Ser Leu Ala Pro Ser Leu  
 965 970 975  
 Gly Gly Gln Ser Met Thr Glu Arg Gln Ala Leu Ser Tyr Gln Asn Ala  
 980 985 990  
 Asp Ser Tyr His His Thr Ile Gln Asn Ser Asp Asp Ala Tyr Val Gln  
 995 1000 1005  
 Leu Asp Asn Leu Pro Gly Met Ser Leu Val Ala Gly Lys Ala Leu Ser  
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 Ser Ala Arg Met Ser Asp Ala Val Leu Ser Gln Ser Ser Leu Met Gly  
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 Ser Gln Gln Phe Gln Asp Gly Glu Asn Glu Glu Cys Gly Ala Ser Leu  
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 Gly Gly His Glu His Pro Asp Leu Ser Asp Gly Ser Gln His Leu Asn  
 1060 1065 1070  
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&lt;210&gt; 6101

&lt;211&gt; 1447

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6101

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 1447

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 <211> 123  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Ile His Leu Gly Pro Arg Gln Ala Val Arg Pro Ser Val Arg Ala Glu  
 50 55 60  
 Ser Arg Arg Val Asp Gly Gly Gly Arg Ser Pro Arg Glu Pro Asp Gly  
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 Arg Gly Arg Ser Arg Gln Ala Arg Phe Ser Pro Tyr Pro Ile Pro Ala  
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<210> 6103  
 <211> 309

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6103

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 309

&lt;210&gt; 6104

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6104

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Ile	Gly	Gln	Ser	Pro	Val	Arg	Val	Leu	Lys	Glu	Ile	Asp	Gly	Phe	Val
		20					25					30			
Leu	Asn	Arg	Leu	Gln	Tyr	Ala	Val	Ile	Ser	Glu	Ala	Trp	Arg	Leu	Val
	35					40				45					
Glu	Glu	Glu	Ile	Val	Ser	Pro	Ser	Asp	Leu	Asp	Leu	Val	Met	Ser	Asp
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Gly	Leu	Gly	Met	Arg	Tyr	Ala									
65				70											

&lt;210&gt; 6105

&lt;211&gt; 1846

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6105

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 120  
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 180  
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 240  
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1846

&lt;210&gt; 6106

&lt;211&gt; 405

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6106

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Ala Ala Ala Ala Gln Gly Pro Glu Pro Gly Met Pro Pro Asn Pro Met
20     25     30
Asn Ser Thr Gln Pro Ser Thr Ala Gly Met Lys Trp Cys Leu Pro Phe
35     40     45
His Leu Leu Cys Arg Gly Pro Ser Gly Ser Leu Ser Ala Pro Pro Ala
50     55     60
Ala Ser Val Ile Ser Ala Pro Pro Ser Ser Ser Ser Arg His Arg Lys
65     70     75     80
Arg Arg Arg Thr Ser Ser Lys Ser Glu Ala Gly Ala Arg Gly Gly Gly
85     90     95
Gln Gly Ser Lys Glu Lys Gly Arg Gly Ser Trp Gly Gly Arg His His
100    105    110
His His His Pro Leu Pro Ala Ala Gly Phe Lys Lys Gln Gln Arg Lys
115    120    125
Phe Gln Tyr Gly Asn Tyr Cys Lys Tyr Tyr Gly Tyr Arg Asn Pro Ser
130    135    140
Cys Glu Asp Gly Arg Leu Arg Val Leu Lys Pro Glu Trp Phe Arg Gly
145    150    155    160
Arg Asp Val Leu Asp Leu Gly Cys Asn Val Gly His Leu Thr Leu Ser
165    170    175
Ile Ala Cys Lys Trp Gly Pro Ser Arg Met Val Gly Leu Asp Ile Asp
180    185    190
Ser Arg Leu Ile His Ser Ala Arg Gln Asn Ile Arg His Tyr Leu Ser
195    200    205
Glu Glu Leu Arg Leu Pro Pro Gln Thr Leu Glu Gly Asp Pro Gly Ala
210    215    220
Glu Gly Glu Glu Gly Thr Thr Thr Val Arg Lys Arg Ser Cys Phe Pro
225    230    235    240
Ala Ser Leu Thr Ala Ser Arg Gly Pro Ile Ala Ala Pro Gln Val Pro
245    250    255
Leu Asp Gly Ala Asp Thr Ser Val Phe Pro Asn Asn Val Val Phe Val
260    265    270
Thr Gly Asn Tyr Val Leu Asp Arg Asp Asp Leu Val Glu Ala Gln Thr
275    280    285
Pro Glu Tyr Asp Val Val Leu Cys Leu Ser Leu Thr Lys Trp Val His
290    295    300
Leu Asn Trp Gly Asp Glu Gly Leu Lys Arg Met Phe Arg Arg Ile Tyr
305    310    315    320
Arg His Leu Arg Pro Gly Gly Ile Leu Val Leu Glu Pro Gln Pro Trp
325    330    335
Ser Ser Tyr Gly Lys Arg Lys Thr Leu Thr Glu Thr Ile Tyr Lys Asn
340    345    350
Tyr Tyr Arg Ile Gln Leu Lys Pro Glu Gln Phe Ser Ser Tyr Leu Thr
355    360    365
Ser Pro Asp Val Gly Phe Ser Ser Tyr Glu Leu Val Ala Thr Pro His
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Asn Thr Ser Lys Gly Phe Gln Arg Pro Val Tyr Leu Phe His Lys Ala
385    390    395    400
Arg Ser Pro Ser His
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<210> 6107  
 <211> 896  
 <212> DNA  
 <213> Homo sapiens

<400> 6107  
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 480  
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<210> 6108  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

<400> 6108  
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 Pro Ala Cys Leu Leu Gly Arg Pro Trp Met Ser Arg Arg Cys Ser Arg  
 35 40 45  
 Leu Gly Ser Thr Pro Pro Pro Ala Pro Ala Ser Pro Val Glu Ser Pro  
 50 55 60  
 Arg Pro Ser Pro Ala Ser Ser Ala Phe Ser Ser Leu Pro Ser Asp Gly  
 65 70 75 80  
 Trp Gly Ser Ser Val Gly Ser Gly Leu Pro Trp Pro Ala Thr Arg Trp

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Ala Pro Arg Ser Trp Leu Leu Pro Leu Ser Ala Thr					
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<210> 6109  
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 <212> DNA  
 <213> Homo sapiens

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 1980  
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 2087

<210> 6110  
 <211> 323  
 <212> PRT  
 <213> Homo sapiens

<400> 6110  
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 35 40 45  
 Cys Val Leu Arg Arg Pro Gly Ala Asn His Glu Gly Ser Ala Ser Arg  
 50 55 60  
 Gln Lys Ala Leu Ser Leu Val Ser Cys Phe Ala Gly Gly Val Phe Leu  
 65 70 75 80  
 Ala Thr Cys Leu Leu Asp Leu Leu Pro Asp Tyr Leu Ala Ala Ile Asp  
 85 90 95  
 Glu Ala Leu Ala Ala Leu His Val Thr Leu Gln Phe Pro Leu Gln Glu  
 100 105 110  
 Phe Ile Leu Ala Met Gly Phe Phe Leu Val Leu Val Met Glu Gln Ile  
 115 120 125  
 Thr Leu Ala Tyr Lys Glu Gln Ser Gly Pro Ser Pro Leu Glu Glu Thr  
 130 135 140  
 Arg Ala Leu Leu Gly Thr Val Asn Gly Gly Pro Gln His Trp His Asp



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145          150          155          160
Gly Pro Gly Val Pro Gln Ala Ser Gly Ala Pro Ala Thr Pro Ser Ala
          165          170          175
Leu Arg Ala Cys Val Leu Val Phe Ser Leu Ala Leu His Ser Val Phe
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Glu Gly Leu Ala Val Gly Leu Gln Arg Asp Arg Ala Arg Ala Met Glu
          195          200          205
Leu Cys Leu Ala Leu Leu Leu His Lys Gly Ile Leu Ala Val Ser Leu
          210          215          220
Ser Leu Arg Leu Leu Gln Ser His Leu Arg Ala Gln Val Val Ala Gly
          225          230          235          240
Cys Gly Ile Leu Phe Ser Cys Met Thr Pro Leu Gly Ile Gly Leu Gly
          245          250          255
Ala Ala Leu Ala Glu Ser Ala Gly Pro Leu His Gln Leu Ala Gln Ser
          260          265          270
Val Leu Glu Gly Met Ala Ala Gly Thr Phe Leu Tyr Ile Thr Phe Leu
          275          280          285
Glu Ile Leu Pro Gln Glu Leu Ala Ser Ser Glu Gln Arg Ile Leu Lys
          290          295          300
Val Ile Leu Leu Leu Ala Gly Phe Ala Leu Leu Thr Gly Leu Leu Phe
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Ile Gln Ile

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<210> 6111
<211> 1706
<212> DNA
<213> Homo sapiens

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720

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&lt;210&gt; 6112

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6112

Met Ser Leu Phe Cys Phe Val Leu Phe Leu Arg Trp Ser Phe Pro Leu  
 1 5 10 15  
 Val Ala Gln Ala Gly Val Xaa Trp His Ser Leu Gly Ser Leu Gln Pro  
 20 25 30  
 Pro Leu Pro Gly Phe Lys Gln Phe Ser Cys Arg Ser Leu Pro Ser Ser  
 35 40 45  
 Trp Asp Tyr Arg His Ala Pro Pro Arg Gln Ala Asn Phe Cys Ile Phe  
 50 55 60  
 Ser Arg Asp Gly Val Ser Pro Cys Trp Pro Gly Trp Ser Gln Thr Pro  
 65 70 75 80  
 Asp Leu Arg Arg Ser Thr His Leu Ser Val Pro Lys Cys Trp Asp Tyr  
 85 90 95  
 Arg Arg Glu Pro Pro His Leu Ala Tyr Glu Trp Ser Phe Asn

100 105 110

<210> 6113  
<211> 1095  
<212> DNA  
<213> Homo sapiens

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540  
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720  
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1095

<210> 6114  
<211> 87  
<212> PRT  
<213> Homo sapiens

<400> 6114  
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His Lys Arg Tyr Lys Ile Gln Lys Lys Val Arg Glu His His Arg Lys
      20           25           30
Leu Arg Lys Glu Ala Lys Lys Arg Gly His Lys Lys Pro Arg Lys Asp
      35           40           45
Pro Gly Val Pro Asn Ser Ala Pro Phe Lys Glu Ala Leu Leu Glu Glu
      50           55           60
Ala Glu Leu Arg Lys Gln Arg Leu Glu Glu Leu Lys Gln Gln Gln Lys
      65           70           75           80
Leu Asp Arg Gln Lys Glu Leu
      85

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<210> 6115  
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 <212> DNA  
 <213> Homo sapiens

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<400> 6115
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120
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180
tggaggacac tgacctgta cccaccctc gaggccagaa gtcggttcct ttgggggaac
240
tgaggggcga gacactcgc cccctgact tgcaaagttg gcgtctttac ttggcctccg
300
ggattctcgc catggcgtgt ctccaggctg ctgatgggca agacagatgt gccaggtcca
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411

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<210> 6116  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

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<400> 6116
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Leu Pro Ile Ser Ser Leu Glu Thr Arg His Ala Gln Asn Pro Gly Gly
20           25           30
Gln Val Lys Thr Pro Thr Leu Gln Val Arg Gly Ala Ser Ala Leu Ala
35           40           45
Pro Gln Phe Pro Gln Arg Asn Arg Leu Leu Ala Ser Arg Val Gly Tyr
50           55           60
Arg Val Ser Val Leu His Gly Ile Tyr Glu Asp Val Pro Pro Lys Leu
65           70           75           80
Leu Pro Pro Pro Pro Trp Asp Ala Thr Val Arg Pro Ala Asp Glu Phe
85           90           95
Leu Pro Gln Arg Pro Arg Glu Gly Gly Leu Arg Ala Ala Ala Ala
100          105          110
Thr Gly Gly Glu Ala Ser Ala Gly Asn Leu Gly Pro Gly Gly Ala Arg

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115 120 125

Arg

<210> 6117  
 <211> 962  
 <212> DNA  
 <213> Homo sapiens

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 960  
 aa  
 962

<210> 6118  
 <211> 113  
 <212> PRT  
 <213> Homo sapiens

<400> 6118  
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 35 40 45  
 Thr Cys Ala Ile Cys Arg Val Gln Val Met Asp Ala Cys Leu Arg Cys  
 50 55 60  
 Gln Ala Glu Asn Lys Gln Glu Asp Cys Val Val Val Trp Gly Glu Cys  
 65 70 75 80  
 Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn  
 85 90 95  
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 100 105 110  
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<210> 6119  
 <211> 375  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 180  
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<210> 6120  
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 <212> PRT  
 <213> Homo sapiens

<400> 6120  
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 Gln Arg Gly Pro Thr Glu Leu Met Pro Ala Cys Phe Lys Pro Thr Asn  
 35 40 45  
 Glu Asn Ser Pro Trp Glu Thr Cys Leu Asp Asn Thr Leu Asp Pro Asn  
 50 55 60  
 Lys Cys Phe Asn Pro Thr Ser Pro Leu Ser Leu Pro Leu Ser Cys Pro  
 65 70 75 80  
 Tyr Pro Leu Val Glu His Val Cys Pro Lys Arg Pro Cys Lys Val Cys  
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Cys Asp Val Ser Cys Cys  
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<210> 6121  
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<212> DNA  
<213> Homo sapiens

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<210> 6122  
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<213> Homo sapiens

<400> 6122  
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Cys His Ile Cys Phe Glu Leu Asn Ile Glu Gly Val Pro Lys Ser Asp
35           40           45
Leu Leu His Thr Lys Ser Leu Arg Gly His Lys Asp Cys Phe Glu Lys
50           55           60
Tyr His Leu Ile Ala Asn Gln Gly Cys Pro Arg Ser Lys Leu Ser Lys
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Ser Thr Tyr Glu Glu Val Lys Thr Ile Leu Ser Lys Lys Ile Asn Trp
85           90           95
Ile Val Gln Tyr Ala Gln Asn Lys Asp Leu Asp Ser Asp Ser Glu Cys
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Ser Lys Lys Pro Gln His His Leu Phe Asn Phe Arg His Lys Pro Glu
115          120          125
Glu Lys Leu Leu Pro Gln Phe Glu Ser Gln Val Pro Lys Tyr Ser Ala
130          135          140
Lys Trp Ile Asp Gly Ser Ala Gly Gly Ile Ser Asn Cys Thr Gln Arg
145          150          155          160
Ile Leu Glu Gln Arg Glu Asn Thr Asp Phe Gly Leu Ser Met Leu Gln
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Asp Ser Gly Ala Thr Leu Cys Arg Asn Ser Val Leu Trp Pro His Ser
180          185          190
His Asn Gln Ala Gln Lys Lys Glu Thr Ile Ser Ser Pro Glu Ala
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Asn Val Gln Thr Gln His Pro His Tyr Ser Arg Glu Glu
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&lt;210&gt; 6123

&lt;211&gt; 900

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6123

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<211> 300

<212> PRT

<213> Homo sapiens

<400> 6124

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 Cys Thr Pro Ala Trp Ala Thr Arg Ala Lys Gln Gln Glu Lys Lys Lys  
 35 40 45  
 Glu Ala Ala Leu Cys Pro Lys Pro Thr Ser Arg Ser Pro Asn Leu Gly  
 50 55 60  
 Pro Leu Gly Leu Phe Ser Leu Ser Val Pro Asn Leu Leu Leu Ala Gly  
 65 70 75 80  
 Asn Lys Pro Pro Gly Leu Leu Pro Arg Lys Gly Leu Tyr Met Ala Asn  
 85 90 95  
 Asp Leu Lys Leu Leu Arg His His Leu Gln Ile Pro Ile His Phe Pro  
 100 105 110  
 Lys Asp Phe Leu Ser Val Met Leu Glu Lys Gly Ser Leu Ser Ala Met  
 115 120 125  
 Arg Phe Leu Thr Ala Val Asn Leu Glu His Pro Glu Met Leu Glu Lys  
 130 135 140  
 Ala Ser Arg Glu Leu Trp Met Arg Val Trp Ser Arg Val Ser Val Gly  
 145 150 155 160  
 Leu Trp Glu Ser Ser Gly Arg Thr Leu Asp Asp Phe Leu Thr Phe Pro  
 165 170 175  
 Arg His Val Phe Arg Val Met Ile Leu Pro Pro Pro Gly Gly Ser Thr  
 180 185 190  
 Val Leu Pro Val Thr Pro Leu Ser Pro His Arg Leu Pro Ala Val Phe  
 195 200 205  
 Ser Ser Ser Gln Asn Glu Asp Ile Thr Glu Pro Gln Ser Ile Leu Ala  
 210 215 220  
 Ala Ala Glu Lys Ala Gly Met Ser Ala Glu Gln Ala Gln Gly Leu Leu  
 225 230 235 240  
 Glu Lys Ile Ala Thr Pro Lys Val Lys Asn Gln Leu Lys Glu Thr Thr  
 245 250 255  
 Glu Ala Ala Cys Arg Tyr Gly Ala Phe Gly Leu Pro Ile Thr Val Ala  
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 <211> 468  
 <212> DNA  
 <213> Homo sapiens

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<210> 6126  
 <211> 156  
 <212> PRT  
 <213> Homo sapiens

<400> 6126  
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 35 40 45  
 Gln Ile Ala Glu Thr Lys Ala Arg Leu Ile Thr Gln Gln His Asp Arg  
 50 55 60  
 Ala Gln Glu Gln Ser Asp His Ala Leu Met Leu Arg Glu Leu Gln Lys  
 65 70 75 80  
 Leu Leu Gln Glu Glu Arg Thr Gln Arg Gln Asp Leu Glu Leu Arg Leu  
 85 90 95  
 Glu Glu Thr Arg Glu Ala Leu Ala Gly Arg Ala Tyr Ala Ala Glu Gln  
 100 105 110  
 Met Glu Gly Phe Glu Leu Gln Thr Lys Gln Leu Thr Arg Glu Val Glu  
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 Glu Leu Lys Ser Glu Leu Gln Ala Ile Arg Asp Glu Lys Asn Gln Pro  
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<210> 6127  
 <211> 1900

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6127

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<210> 6128

<211> 530

<212> PRT

<213> Homo sapiens

<400> 6128

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Arg	Ala	Ala	Ala	Glu	Leu	Ala	Leu	Ser	Cys	Leu	Pro	His	Ala	His	Ala
	50					55				60					
Leu	Asn	Pro	Asn	Glu	Ile	Gln	Arg	Ala	Leu	Val	Gln	Cys	Lys	Glu	Gln
65				70					75					80	
Asp	Asn	Leu	Met	Leu	Glu	Lys	Ala	Cys	Met	Ala	Val	Glu	Glu	Ala	Ala
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Lys	Gly	Gly	Gly	Val	Tyr	Pro	Glu	Val	Leu	Phe	Glu	Val	Ala	His	Gln
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Trp	Phe	Trp	Leu	Tyr	Glu	Gln	Thr	Ala	Gly	Gly	Ser	Ser	Thr	Ala	Arg
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Val	Ile	Ser	Val	Gly	Ser	Ser	Leu	Tyr	Pro	Gly	Pro	Gly	Leu	Gly	His
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		210				215						220			
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225				230					235					240	
Tyr	Pro	Gln	Gly	Val	His	Pro	Ala	Phe	Leu	Gly	Ala	Gln	Tyr	Pro	Tyr
			245					250					255		
Ser	Val	Thr	Pro	Pro	Ser	Leu	Ala	Ala	Thr	Ala	Val	Ser	Phe	Pro	Val

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Val Ser Ser Val His Pro Ala Ser Thr Phe Pro Ala Ile Gln Gly Ala
      305      310      315      320
Ser Leu Pro Ala Leu Thr Thr Gln Pro Ser Pro Leu Val Ser Gly Gly
      325      330      335
Phe Pro Pro Pro Glu Glu Thr His Ser Gln Pro Val Asn Pro His
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Ser Leu His His Leu His Ala Ala Tyr Arg Val Gly Met Leu Ala Leu
      355      360      365
Glu Met Leu Gly Arg Arg Ala His Asn Asp His Pro Asn Asn Phe Ser
      370      375      380
Arg Ser Pro Pro Tyr Thr Asp Asp Val Lys Trp Leu Leu Gly Leu Ala
      385      390      395      400
Ala Lys Leu Gly Val Asn Tyr Val His Gln Phe Cys Val Gly Ala Ala
      405      410      415
Lys Gly Val Leu Ser Pro Phe Val Leu Gln Glu Ile Val Met Glu Thr
      420      425      430
Leu Gln Arg Leu Ser Pro Ala His Ala His Asn His Leu Arg Ala Pro
      435      440      445
Ala Phe His Gln Leu Val Gln Arg Cys Gln Gln Ala Tyr Met Gln Tyr
      450      455      460
Ile His His Arg Leu Ile His Leu Thr Pro Ala Asp Tyr Asp Asp Phe
      465      470      475      480
Val Asn Ala Ile Arg Ser Ala Arg Ser Ala Phe Cys Leu Thr Pro Met
      485      490      495
Gly Met Met Gln Phe Asn Asp Ile Leu Gln Asn Leu Lys Arg Ser Lys
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<210> 6129
<211> 2012
<212> DNA
<213> Homo sapiens

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360

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<212> PRT  
<213> Homo sapiens

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Gly Pro Arg Leu Phe Leu Leu Gln Gln Pro Leu Ala Pro Ser Gly Leu  
35 40 45  
Thr Leu Lys Ser Glu Ala Leu Arg Asn Trp Gln Val Tyr Arg Leu Val  
50 55 60  
Thr Tyr Ile Phe Val Tyr Glu Asn Pro Ile Ser Leu Leu Cys Gly Ala  
65 70 75 80  
Ile Ile Ile Trp Arg Phe Ala Gly Asn Phe Glu Arg Thr Val Gly Thr  
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Val Arg His Cys Phe Phe Thr Val Ile Phe Ala Ile Phe Ser Ala Ile  
100 105 110  
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Val Glu Asp Ala Arg Gly Phe Thr Pro Val Ala Phe Ala Met Leu Gly  
130 135 140  
Val Thr Thr Val Arg Ser Arg Met Arg Arg Ala Leu Val Phe Gly Met  
145 150 155 160  
Val Val Pro Ser Val Leu Val Pro Trp Leu Leu Gly Ala Ser Trp  
165 170 175  
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180 185 190  
Gly Leu Ala Tyr Gly Leu Thr Tyr Cys Tyr Ser Ile Asp Leu Ser Glu  
195 200 205  
Arg Val Ala Leu Lys Leu Asp Gln Thr Phe Pro Phe Ser Leu Met Arg  
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225 230 235 240  
Ala Ala Gln Ser Arg Lys Leu Asn Pro Val Pro Gly Ser Tyr Pro Thr  
245 250 255  
Gln Ser Cys His Pro His Leu Ser Pro Ser His Pro Val Ser Gln Thr  
260 265 270  
Gln His Ala Ser Gly Gln Lys Leu Ala Ser Trp Pro Ser Cys Thr Pro  
275 280 285  
Gly His Met Pro Thr Leu Pro Pro Tyr Gln Pro Ala Ser Gly Leu Cys  
290 295 300  
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&lt;210&gt; 6131

&lt;211&gt; 3526

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6131

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&lt;210&gt; 6134

&lt;211&gt; 595

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6134

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145 150 155 160  
Trp Pro His Glu Ala Ala Ser Ser Ser Gln Arg Arg Gln Pro Pro Pro  
165 170 175  
Gly Ala Ala His Pro Leu Asn Arg Lys Ser Leu Leu Ala Pro Gly Ser  
180 185 190  
Gly Ser Gly Gly Ala Ser Pro Leu Thr Ser Ala Gln Asp Ser Ala Phe  
195 200 205  
Leu Asn Asp Ala Asp Met Val Met Ser Phe Val Asn Leu Val Glu Tyr  
210 215 220  
Asp Lys Glu Phe Ser Pro Arg Gln Arg His His Lys Glu Phe Lys Phe  
225 230 235 240  
Asn Leu Ser Gln Ile Pro Glu Gly Gly Val Val Thr Ala Ala Glu Phe  
245 250 255  
Arg Ile Tyr Lys Asp Cys Val Met Gly Ser Phe Lys Asn Gln Thr Phe  
260 265 270  
Leu Ile Ser Ile Tyr Gln Val Leu Gln Glu His Gln His Arg Asp Ser  
275 280 285  
Asp Leu Phe Leu Leu Asp Thr Arg Val Val Trp Ala Ser Glu Glu Gly  
290 295 300  
Trp Leu Glu Phe Asp Ile Thr Ala Thr Ser Asn Leu Trp Val Val Thr  
305 310 315 320  
Pro Gln His Asn Met Gly Leu Gln Leu Ser Val Val Thr Arg Asp Gly  
325 330 335  
Val His Val His Pro Arg Ala Ala Gly Leu Val Gly Arg Asp Gly Pro  
340 345 350  
Tyr Asp Lys Gln Pro Phe Met Val Ala Phe Phe Lys Val Ser Glu Val

355                      360                      365  
 His Val Arg Thr Thr Arg Ser Ala Ser Ser Arg Arg Arg Gln Gln Ser  
 370                      375                      380  
 Arg Asn Arg Ser Thr Gln Ser Gln Asp Val Ala Arg Val Ser Ser Ala  
 385                      390                      395                      400  
 Ser Asp Tyr Asn Ser Ser Glu Leu Lys Thr Ala Cys Arg Lys His Glu  
 405                      410                      415  
 Leu Tyr Val Ser Phe Gln Asp Leu Gly Trp Gln Asp Trp Ile Ile Ala  
 420                      425                      430  
 Pro Lys Gly Tyr Ala Ala Asn Tyr Cys Asp Gly Glu Cys Ser Phe Pro  
 435                      440                      445  
 Leu Asn Ala His Met Asn Ala Thr Asn His Ala Ile Val Gln Thr Leu  
 450                      455                      460  
 Val His Leu Met Asn Pro Glu Tyr Val Pro Lys Pro Cys Cys Ala Pro  
 465                      470                      475                      480  
 Thr Lys Leu Asn Ala Ile Ser Val Leu Tyr Phe Asn Asp Asn Ser Lys  
 485                      490                      495  
 Ile Thr Leu Lys Lys Tyr Arg Asn Met Val Val Arg Ala Cys Gly Tyr  
 500                      505                      510  
 Cys

<210> 6143  
 <211> 1137  
 <212> DNA  
 <213> Homo sapiens

<400> 6143  
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 120  
 caccacacctg cccaacctag gacagctggg cctgagctgg gcgggcaggg gattccatct  
 180  
 cctgggtgctg cctgccagag gggagaggct ggaggcggcg ggaatgctgt tctccccag  
 240  
 gactcagtc tcagggtctc tgccgtggga cgtggggccg agggacctgg ggcactgacc  
 300  
 aggtcgggggt cgggggcagc atctgcattg gtgaggccgg gtgaaaaggg ctgctggtgc  
 360  
 cggacagctt ctggtgctgg gcctagcgga gacagaggac cagaggtcca ggttcctggg  
 420  
 ggctgagctt ttctcagact tcggaggaaa aatgtcccag cccagcaggc agtgccgggg  
 480  
 cagggccagt gtgtcagagg cgtcaaagct ctttcgggtg gatgtggtac cggtcggggg  
 540  
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 600  
 ccagggtccc agggccctgc tggctctcgc atgtctctga caggcggcag ggggtaccgg  
 660  
 gatccacagg caccgggaac aggcgccggg tgacacggtg acagtacacg cattcatggt  
 720  
 cttctctcac gccgtgcca ctgctctcac gcaggcctgg caactggggg tcaggatggc  
 780

tgcagataca ctctctcttg ttggtttccc gaaactcctg cagcttgag aagaaggcct  
 840  
 caggctggct ggtgatggaa gagctgggtg ccagagaccc tgcaatccag tcatagccca  
 900  
 ggtatggcct gaggcgccag ctctctcag gaactgcaga ctctcagag aaggtcacc  
 960  
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 1020  
 gtcctggatc acccagcctc cctgagggct ctgggtccct caggcttgag gtgcccagcg  
 1080  
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 1137

<210> 6144

<211> 141

<212> PRT

<213> Homo sapiens

<400> 6144

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Ser	Thr	Glu	Ser	Leu	Thr	Leu	His	Pro	Arg	Val	Leu	Pro	Leu	Trp	Asn
		20						25					30		
Ser	Gly	Ser	Arg	Gln	Ala	Trp	Val	His	Pro	Pro	Ala	Gln	Pro	Arg	Thr
		35				40						45			
Ala	Gly	Pro	Glu	Leu	Gly	Gly	Gln	Gly	Ile	Pro	Ser	Pro	Gly	Cys	Ala
		50				55				60					
Cys	Gln	Arg	Gly	Glu	Ala	Gly	Gly	Gly	Gly	Asn	Ala	Val	Leu	Pro	Gln
		65			70				75					80	
Glu	Ser	Val	Leu	Arg	Ala	Ser	Ala	Val	Gly	Arg	Gly	Ala	Glu	Gly	Pro
			85					90						95	
Gly	Ala	Leu	Thr	Arg	Ser	Gly	Ser	Gly	Ala	Ala	Ser	Ala	Leu	Val	Arg
			100					105						110	
Pro	Gly	Glu	Lys	Gly	Cys	Trp	Cys	Arg	Thr	Ala	Ser	Gly	Ala	Gly	Pro
		115						120					125		
Ser	Gly	Asp	Arg	Gly	Pro	Glu	Val	Gln	Val	Pro	Gly	Gly			
		130					135					140			

<210> 6145

<211> 766

<212> DNA

<213> Homo sapiens

<400> 6145

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 120  
 cagcagcaag tgaagcagcc ttgtcagcca cccctgtta aatgtcaaga gacatgtgca  
 180  
 cccaaaacca aggatccatg tgctccccag gtcaagaagc aatgcccacc gaaagacacc  
 240  
 atcattccag cccagcagaa gtgtccctca gccagcaag cctccaagag caaacagaag  
 300

taaggatgga ctggatatta ccatcatcca ccattctggc taccagatgg aaccttctct  
 360  
 tcttctctct cctcttccct ccagctcttg agcctaccct cctctcacat ctctctctgc  
 420  
 ccaagatgta aggaagcatt gtaaggattt cttcccatcg tacccttccc cacacatacc  
 480  
 accttggctt cttctatata ccaccccgat gctctccag gtgggtgtga gagagacctc  
 540  
 attctctgca ggctccagcg tggccacagc taaggcccat ccatttccca aagtgaggaa  
 600  
 agtgtctggg cttctctctg ggtccaccc tgacaagtag ggtcacagag gctgggtcac  
 660  
 agtttctgcc tcattctctt ccatgatgcc cctgtctctg ggcttctctc ctgttttccc  
 720  
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 766

&lt;210&gt; 6146

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6146

Xaa Lys Gly Ser Ala Ser Ser Pro Gly Val Gln Leu Val Ala Ser Gly  
 1 5 10 15  
 Ser Pro Val Pro Arg Ala Met Ser Ser Gln Gln Gln Gln Arg Gln Ala  
 20 25 30  
 Ala Val Pro Thr Pro Glu Ala Gln Gln Gln Gln Val Lys Gln Pro Cys  
 35 40 45  
 Gln Pro Pro Pro Val Lys Cys Gln Glu Thr Cys Ala Pro Lys Thr Lys  
 50 55 60  
 Asp Pro Cys Ala Pro Gln Val Lys Lys Gln Cys Pro Pro Lys Asp Thr  
 65 70 75 80  
 Ile Ile Pro Ala Gln Gln Lys Cys Pro Ser Ala Gln Gln Ala Ser Lys  
 85 90 95  
 Ser Lys Gln Lys  
 100

&lt;210&gt; 6147

&lt;211&gt; 1852

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6147

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 120  
 acatagtctt ctgtaaaact gacttacttt ccaaatatat tttgaaataa aacaatataa  
 180  
 aaatgttttc tgttttttagg aatgggtggaa agcagcagac acaattggag tgggttgat  
 240  
 aagcaaagtg atattcaaaa tttaaatgaa gagagaatct tagctttaca gctttgtggg  
 300

tggataaaga aaggaacgga tgtagacgtg gggccatttt tgaactccct tgtacaagaa  
360  
ggggaatggg aaagagctgc tgcgtgggca ttgttcaact tggatattcg ccgagcaatc  
420  
caaatccctga atgaaggggc atcttctgaa aaaggagatc tgaatctcaa tgtggtagca  
480  
atggccttat cgggttatac ggatgagaag aactcccttt ggagagaaat gtgtagcaca  
540  
ctgcgattac agctaaataa cccgtatttg tgtgtcatgt ttgcatttct gacaagtga  
600  
acaggatctt acgatggagt tttgtatgaa aacaaagtgt cagtacgtga cagagtggca  
660  
tttgcttgta aattcccttag tgatactcag ttaaatagat acatcgaaaa gttgaccaat  
720  
gaaatgaaag aggcctggaaa ttiggaagga attttgctta caggccttac taaagatgga  
780  
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840  
atgttacagg gttcaccttt agatgttctt aaagatgaaa ggggttcagta ctggattgag  
900  
aattatagaa atttattaga tgcctggagg tttggcata aacgagctga atttgatatt  
960  
cacaggagta agttggatcc cagttccaag cctttagcac aagtttttgt gaggttgcaat  
1020  
ttctgtggca agtcaatctc ctacagctgt tcagctgtgc ctcatcaggg cagaggtttt  
1080  
agtcagtatg gtgtgagtgg ctccaccaag aaatctaaag tcacaagttg tcctggctgt  
1140  
cgaaaaccac ttctcgatg tgcgctttgt ctattaata tgggaacacc agtttctagc  
1200  
tgtcctggag gaaccaaatac agatgaaaaa gtggacttga gcaaggacaa aaaattagcc  
1260  
caatttaaca actgggtttac atggtgtcat aattgcaggc acgggtggaca tgcaggacat  
1320  
atgcttagtt gggtcaggga ccatgcagag tgcctgtgt ctgcatgcac gtgtaaatgt  
1380  
atgcagttgg atacaacggg gaatctggta cctgcagaga ctgtccagcc ataaaatgtt  
1440  
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1560  
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1620  
caaaataaac atcgaagtat agacatgagt tctgttcagc aggttgaaaa gtctgattta  
1680  
gaaaaacttt ctaagttttg gttgaaatta tgaacactct agaagcagaa tttctggaag  
1740  
agccaagaac agactttgag cctatatctt caaagctgaa actggatata tttcaataaa  
1800  
atatgtgcac ttttaataa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa  
1852

&lt;210&gt; 6148

&lt;211&gt; 410

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6148

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Met Val Glu Ser Ser Arg His Asn Trp Ser Gly Leu Asp Lys Gln Ser
 1          5          10          15
Asp Ile Gln Asn Leu Asn Glu Glu Arg Ile Leu Ala Leu Gln Leu Cys
 20          25          30
Gly Trp Ile Lys Lys Gly Thr Asp Val Asp Val Gly Pro Phe Leu Asn
 35          40          45
Ser Leu Val Gln Glu Gly Glu Trp Glu Arg Ala Ala Ala Val Ala Leu
 50          55          60
Phe Asn Leu Asp Ile Arg Arg Ala Ile Gln Ile Leu Asn Glu Gly Ala
 65          70          75          80
Ser Ser Glu Lys Gly Asp Leu Asn Leu Asn Val Val Ala Met Ala Leu
 85          90          95
Ser Gly Tyr Thr Asp Glu Lys Asn Ser Leu Trp Arg Glu Met Cys Ser
100          105          110
Thr Leu Arg Leu Gln Leu Asn Asn Pro Tyr Leu Cys Val Met Phe Ala
115          120          125
Phe Leu Thr Ser Glu Thr Gly Ser Tyr Asp Gly Val Leu Tyr Glu Asn
130          135          140
Lys Val Ala Val Arg Asp Arg Val Ala Phe Ala Cys Lys Phe Leu Ser
145          150          155          160
Asp Thr Gln Leu Asn Arg Tyr Ile Glu Lys Leu Thr Asn Glu Met Lys
165          170          175
Glu Ala Gly Asn Leu Glu Gly Ile Leu Leu Thr Gly Leu Thr Lys Asp
180          185          190
Gly Val Asp Leu Met Glu Ser Tyr Val Asp Arg Thr Gly Asp Val Gln
195          200          205
Thr Ala Ser Tyr Cys Met Leu Gln Gly Ser Pro Leu Asp Val Leu Lys
210          215          220
Asp Glu Arg Val Gln Tyr Trp Ile Glu Asn Tyr Arg Asn Leu Leu Asp
225          230          235          240
Ala Trp Arg Phe Trp His Lys Arg Ala Glu Phe Asp Ile His Arg Ser
245          250          255
Lys Leu Asp Pro Ser Ser Lys Pro Leu Ala Gln Val Phe Val Ser Cys
260          265          270
Asn Phe Cys Gly Lys Ser Ile Ser Tyr Ser Cys Ser Ala Val Pro His
275          280          285
Gln Gly Arg Gly Phe Ser Gln Tyr Gly Val Ser Gly Ser Pro Thr Lys
290          295          300
Ser Lys Val Thr Ser Cys Pro Gly Cys Arg Lys Pro Leu Pro Arg Cys
305          310          315          320
Ala Leu Cys Leu Ile Asn Met Gly Thr Pro Val Ser Ser Cys Pro Gly
325          330          335
Gly Thr Lys Ser Asp Glu Lys Val Asp Leu Ser Lys Asp Lys Lys Leu
340          345          350
Ala Gln Phe Asn Asn Trp Phe Thr Trp Cys His Asn Cys Arg His Gly
355          360          365
Gly His Ala Gly His Met Leu Ser Trp Phe Arg Asp His Ala Glu Cys
370          375          380
Pro Val Ser Ala Cys Thr Cys Lys Cys Met Gln Leu Asp Thr Thr Gly

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385                               390                               395                               400
Asn Leu Val Pro Ala Glu Thr Val Gln Pro
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<210> 6149
<211> 1949
<212> DNA
<213> Homo sapiens

<400> 6149
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120
agacagtccct cgtcagcact gacttttcagc tatggaatcg cagacgggtg atgatgaagc
180
gccggccgctg taaatgaaga tcgggtgagg agcaggacga tgcccaaggg tgggtgcctt
240
aaagcaccac agcaggaaga gcttcccttc agcagcgaca tgggtggagaa gcagactggg
300
aaaaagata aagataaagt ttctctaacc aagaccccaa aactggagcg tggcgatggc
360
gggaaggagg tgagggagcg agccagacaag cggaagctgc ccttcaccgc gggcgccaat
420
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480
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540
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600
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660
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720
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780
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840
gcctgttaacc ggggctacta cgacgtcgcg aagcagctgc tggctgcagg tgcggaggtg
900
aacaccaagg gcctagatga gcacacgcct ttgcacgacg ctgccaaaca cgggcactac
960
aaggtggtga agctgctgct gcgggtacgga gggaaacccg agcagagcaa caggaaaggg
1020
gagacgccgc tgaaagtggc caactcccc acgatggtga acctcctgtt aggc aaagggc
1080
acttacactt ccagcgagga gagctcgagc gagagctcag aagaggaaga cgcaccatcc
1140
ttcgacactt ccagttcagt cgacggcaac aacacggact ccgagttcga aaaagggctc
1200
aagcacaaag ccaagaaccc agagccacag aaggccacgg cccccgtcaa ggacgagtat
1260
gagtttgatg aggacgacga gcaggacagg gttctctcgg tggacgacaa gcacctattg
1320

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aaaaaggact acagaaaaga aacgaaatcc aatagtttta tctctatacc caaaatggag  
 1380  
 gttaaaagt acactaaaaa taacacgatt gcaccaaaga aagcgtccca tcgtatcctg  
 1440  
 tcagacacgt cggacgagga ggacgcgagt gtcaccgtgg ggacaggaga gaagctgaga  
 1500  
 ctctcggcac atacgatatt gcctggtagt aagacacgag agccttctaa tgccaagcag  
 1560  
 cagaaggaaa aaaataaagt gaaaaagaag cgaagaaaag aaacaaaagg cagagaggtt  
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 1800  
 gctctgccgc ccagaagcag aaccccagcc acacagacca gcacaccaag cactggcgga  
 1860  
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 1920  
 ccacaaggac gagactgaca agcgagtct  
 1949

<210> 6150  
 <211> 508  
 <212> PRT  
 <213> Homo sapiens

<400> 6150  
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 20 25 30  
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 35 40 45  
 Lys Glu Val Arg Glu Arg Ala Ser Lys Arg Lys Leu Pro Phe Thr Ala  
 50 55 60  
 Gly Ala Asn Gly Glu Gln Lys Asp Ser Asp Thr Glu Lys Gln Gly Pro  
 65 70 75 80  
 Glu Arg Lys Arg Ile Lys Lys Glu Pro Val Thr Arg Lys Ala Gly Leu  
 85 90 95  
 Leu Phe Gly Met Gly Leu Ser Gly Ile Arg Ala Gly Tyr Pro Leu Ser  
 100 105 110  
 Glu Arg Gln Gln Val Ala Leu Leu Met Gln Met Thr Ala Glu Glu Ser  
 115 120 125  
 Ala Asn Ser Pro Val Asp Thr Thr Pro Lys His Pro Ser Gln Ser Thr  
 130 135 140  
 Val Cys Gln Lys Gly Thr Pro Asn Ser Ala Ser Lys Thr Lys Asp Lys  
 145 150 155 160  
 Leu Asn Lys Arg Asn Glu Arg Gly Glu Thr Arg Leu His Arg Ala Ala  
 165 170 175  
 Ile Arg Gly Asp Ala Arg Arg Ile Lys Glu Leu Ile Ser Glu Gly Ala  
 180 185 190  
 Asp Val Asn Val Lys Asp Phe Ala Gly Trp Thr Ala Leu His Glu Ala



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      195      200      205
Cys Asn Arg Gly Tyr Tyr Asp Val Ala Lys Gln Leu Leu Ala Ala Gly
210      215      220
Ala Glu Val Asn Thr Lys Gly Leu Asp Asp Asp Thr Pro Leu His Asp
225      230      235      240
Ala Ala Asn Asn Gly His Tyr Lys Val Val Lys Leu Leu Leu Arg Tyr
      245      250      255
Gly Gly Asn Pro Gln Gln Ser Asn Arg Lys Gly Glu Thr Pro Leu Lys
260      265      270
Val Ala Asn Ser Pro Thr Met Val Asn Leu Leu Leu Gly Lys Gly Thr
275      280      285
Tyr Thr Ser Ser Glu Glu Ser Ser Thr Glu Ser Ser Glu Glu Asp
290      295      300
Ala Pro Ser Phe Ala Pro Ser Ser Ser Val Asp Gly Asn Asn Thr Asp
305      310      315      320
Ser Glu Phe Glu Lys Gly Leu Lys His Lys Ala Lys Asn Pro Glu Pro
      325      330      335
Gln Lys Ala Thr Ala Pro Val Lys Asp Glu Tyr Glu Phe Asp Glu Asp
340      345      350
Asp Glu Gln Asp Arg Val Pro Pro Val Asp Asp Lys His Leu Leu Lys
355      360      365
Lys Asp Tyr Arg Lys Glu Thr Lys Ser Asn Ser Phe Ile Ser Ile Pro
370      375      380
Lys Met Glu Val Lys Ser Tyr Thr Lys Asn Asn Thr Ile Ala Pro Lys
385      390      395      400
Lys Ala Ser His Arg Ile Leu Ser Asp Thr Ser Asp Glu Glu Asp Ala
      405      410      415
Ser Val Thr Val Gly Thr Gly Glu Lys Leu Arg Leu Ser Ala His Thr
420      425      430
Ile Leu Pro Gly Ser Lys Thr Arg Glu Pro Ser Asn Ala Lys Gln Gln
435      440      445
Lys Glu Lys Asn Lys Val Lys Lys Lys Arg Lys Lys Glu Thr Lys Gly
450      455      460
Arg Glu Val Arg Phe Gly Lys Arg Ser Xaa Ser Ser Ala Pro Arg Ser
465      470      475      480
Arg Arg Ala Ser Pro Gln Arg Val Gly Arg Met Thr Gly Thr Leu Trp
      485      490      495
Gly Ala Leu Ala Ala Ser Arg Gly Pro Arg Trp Cys
500      505

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<210> 6151  
 <211> 648  
 <212> DNA  
 <213> Homo sapiens

<400> 6151  
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 120  
 gtggaggtca cettctggta gacggagacc cgcttttcag actctgtggc gcagcaggcg  
 180  
 ggccaggaac atttgggcca ctattgctct tagccctgcc gcgcctgact ttctctctc  
 240

tactttccctt ccgaccgtag ggacaagtgt ggggataccgc ttggggctcc aaggccctgc  
 300  
 ccgcactggc agcaccaagc ggggtgtagaa tgactggaag gagcaggga ggaagatggg  
 360  
 tgtcaactgt cccggccagt ggctgctgac atgtgtgtgt gaacaggga aaggccaccc  
 420  
 tctcccatgt ttctccgctc tctcgggttc tctcgggaga cccgcagggc tgcccagagt  
 480  
 agctccgagt tgccctgggt cgtcggggct tggctcgcac cctcctccgc tagtccgctc  
 540  
 ccgcgttcca cagcgcctcg ccgctcgggtg tgcacgcact gcggtttaac ccagccgaca  
 600  
 aggcacgctt gccaaagagg cgcgggtgtg tgtgtgcggg gtccgcgg  
 648

<210> 6152  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 6152  
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 Gln Pro Cys Gly Ser Pro Arg Arg Thr Glu Glu Thr Gly Glu Thr Trp  
 20 25 30  
 Glu Arg Val Ala Phe Ser Leu Phe Thr His Thr Cys Thr Gln Pro Leu  
 35 40 45  
 Ala Gly Thr Val Asp Thr His Leu Pro Ser Leu Leu Pro Val Ile  
 50 55 60  
 Leu His Pro Leu Gly Ala Ala Ser Ala Gly Arg Ala Leu Glu Pro Lys  
 65 70 75 80  
 Ala Asp Pro His Thr Cys Pro Tyr Gly Arg Lys Glu Ser Arg Gly Glu  
 85 90 95  
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 100 105 110  
 Gly Pro Pro Ala Ala Pro Gln Ser Leu Lys Ser Gly Ser Pro Ser Thr  
 115 120 125  
 Arg Arg  
 130

<210> 6153  
 <211> 1810  
 <212> DNA  
 <213> Homo sapiens

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 120  
 cacaaggatg ccgtcacctg tgtgaacttc tctccttcgg gacacctgct tgcttcgggc  
 180  
 tcccagagaca agactgtccg catctgggta cccaatgtca aaggtgagtc cactgtgttt  
 240

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 <213> Homo sapiens

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 Thr Val Arg Ile Trp Val Pro Asn Val Lys Gly Glu Ser Thr Val Phe  
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 Arg Ala His Thr Ala Thr Val Arg Ser Val His Phe Cys Ser Asp Gly  
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 Gln Ser Phe Val Thr Ala Ser Asp Asp Lys Thr Val Lys Val Trp Ala  
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 Thr His Arg Gln Lys Phe Leu Phe Ser Leu Ser Gln His Ile Asn Trp  
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 Pro Gln Thr Leu Thr Ser Thr Leu Glu His Ile Val Gly Gln Leu Asp  
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<211> 995  
<212> DNA  
<213> Homo sapiens

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<212> PRT  
<213> Homo sapiens

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Met Thr Leu Ala Asp Gly Arg Val Val Leu Ala Leu Glu Gly Gly His					
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Asp Leu Thr Ala Ile Cys Asp Ala Ser Glu Ala Cys Val Asn Ala Leu					
65		70		75	
Leu Gly Asn Glu Leu Glu Pro Leu Ala Glu Asp Ile Leu His Gln Ser					
	85		90		95
Pro Asn Met Asn Ala Val Ile Ser Leu Gln Lys Ile Ile Glu Ile Gln					
	100		105		110
Lys Leu Leu Val Ser Leu Trp Lys Arg Ser Gln Pro Cys Glu Val Pro					
	115		120		125
Ser Pro Pro Leu Ile Phe Pro Val Cys Asp Ile Ile Val Tyr Pro Pro					
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Thr Pro Val Pro Ser Asp Met Ser Cys Leu Leu Pro Gly Trp His Arg					
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Phe Asn Gly Thr					160

&lt;210&gt; 6157

&lt;211&gt; 2135

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6157

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&lt;210&gt; 6158

&lt;211&gt; 455

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6158

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Ala Ala Ser Gly Ile Tyr Phe Tyr Ser Asn Lys Tyr Leu Asp Pro Asn

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Phe Asp Asp Thr Pro Leu Gly Thr Ala Ser Leu Ala Gln Val His Lys
      85      90      95
Ala Val Leu His Asp Gly Arg Thr Val Ala Val Lys Val Gln His Pro
  100      105      110
Lys Val Arg Ala Gln Ser Ser Lys Asp Ile Leu Leu Met Glu Val Leu
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Val Leu Ala Val Lys Gln Leu Phe Pro Glu Phe Glu Phe Met Trp Leu
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Val Asp Glu Ala Lys Lys Asn Leu Pro Leu Glu Leu Asp Phe Leu Asn
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Glu Gly Arg Asn Ala Glu Lys Val Ser Gln Met Leu Arg His Phe Asp
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Phe Leu Lys Val Pro Arg Ile His Trp Asp Leu Ser Thr Glu Arg Val
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Leu Leu Met Glu Phe Val Asp Gly Gly Gln Val Asn Asp Arg Asp Tyr
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Met Glu Arg Asn Lys Ile Asp Val Asn Glu Ile Ser Arg His Leu Gly
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Lys Met Tyr Ser Glu Met Ile Phe Val Asn Gly Phe Val His Cys Asp
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Pro His Pro Gly Asn Val Leu Val Arg Lys His Pro Gly Thr Gly Lys
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Asp Met Lys Arg Val Lys Glu Tyr Ser Gln Arg Leu Gly Ala Gly Asp
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Val Asn Arg Gly Ile Ser Gln Ala Pro Val Thr Ala Thr Glu Asp Leu
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&lt;210&gt; 6160

&lt;211&gt; 551

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6160

Leu Glu Val Arg Ala Gly Pro Asp Ser Ala Gly Ile Ala Leu Tyr Ser  
 1 5 10 15  
 His Glu Asp Val Cys Val Phe Lys Cys Ser Val Ser Arg Glu Thr Glu

	20		25		30
Cys Ser Arg Val Gly Lys Gln Ser Phe Ile Ile Thr Leu Gly Cys Asn	35	40	45		
Ser Val Leu Ile Gln Phe Ala Thr Pro Asn Asp Phe Cys Ser Phe Tyr	50	55	60		
Asn Ile Leu Lys Thr Cys Arg Gly His Thr Leu Glu Arg Ser Val Phe	65	70	75	80	
Ser Glu Arg Thr Glu Ser Ser Ala Val Gln Tyr Phe Gln Phe Tyr	85	90	95		
Gly Tyr Leu Ser Gln Gln Gln Asn Met Met Gln Asp Tyr Val Arg Thr	100	105	110		
Gly Thr Tyr Gln Arg Ala Ile Leu Gln Asn His Thr Asp Phe Lys Asp	115	120	125		
Lys Ile Val Leu Asp Val Gly Cys Gly Ser Gly Ile Leu Ser Phe Phe	130	135	140		
Ala Ala Gln Ala Gly Ala Arg Lys Ile Tyr Ala Val Glu Ala Ser Thr	145	150	155	160	
Met Ala Gln His Ala Glu Val Leu Val Lys Ser Asn Asn Leu Thr Asp	165	170	175		
Arg Ile Val Val Ile Pro Gly Lys Val Glu Glu Val Ser Leu Pro Glu	180	185	190		
Gln Val Asp Ile Ile Ile Ser Glu Pro Met Gly Tyr Met Leu Phe Asn	195	200	205		
Glu Arg Met Leu Glu Ser Tyr Leu His Ala Lys Lys Tyr Leu Lys Pro	210	215	220		
Ser Gly Asn Met Phe Pro Thr Ile Gly Asp Val His Leu Ala Pro Phe	225	230	235	240	
Thr Asp Glu Gln Leu Tyr Met Glu Gln Phe Thr Lys Ala Asn Phe Trp	245	250	255		
Tyr Gln Pro Ser Phe His Gly Val Asp Leu Ser Ala Leu Arg Gly Ala	260	265	270		
Ala Val Asp Glu Tyr Phe Arg Gln Pro Val Val Asp Thr Phe Asp Ile	275	280	285		
Arg Ile Leu Met Ala Lys Ser Val Lys Tyr Thr Val Asn Phe Leu Glu	290	295	300		
Ala Lys Glu Gly Asp Leu His Arg Ile Glu Ile Pro Phe Lys Phe His	305	310	315	320	
Met Leu His Ser Gly Leu Val His Gly Leu Ala Phe Trp Phe Asp Val	325	330	335		
Ala Phe Ile Gly Ser Ile Met Thr Val Trp Leu Ser Thr Ala Pro Thr	340	345	350		
Glu Pro Leu Thr His Trp Tyr Gln Val Arg Cys Leu Phe Gln Ser Pro	355	360	365		
Leu Phe Ala Lys Ala Gly Asp Thr Leu Ser Gly Thr Cys Leu Leu Ile	370	375	380		
Ala Asn Lys Arg Gln Ser Tyr Asp Ile Ser Ile Val Ala Gln Val Asp	385	390	395	400	
Gln Thr Gly Ser Lys Ser Ser Asn Leu Leu Asp Leu Lys Asn Pro Phe	405	410	415		
Phe Arg Tyr Thr Gly Thr Thr Pro Ser Pro Pro Gly Ser His Tyr	420	425	430		
Thr Ser Pro Ser Glu Asn Met Trp Asn Thr Gly Ser Thr Tyr Asn Leu	435	440	445		
Ser Ser Gly Met Ala Val Ala Gly Met Pro Thr Ala Tyr Asp Leu Ser					

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      450              455              460
Ser Val Ile Ala Ser Gly Ser Ser Val Gly His Asn Asn Leu Ile Pro
465              470              475              480
Leu Ala Asn Thr Gly Ile Val Asn His Thr His Ser Arg Met Gly Ser
      485              490              495
Ile Met Ser Thr Gly Ile Val Gln Gly Ser Ser Gly Ala Gln Gly Ser
      500              505              510
Gly Gly Gly Ser Thr Ser Ala His Tyr Ala Val Asn Ser Gln Phe Thr
      515              520              525
Met Gly Gly Pro Ala Ile Ser Met Ala Ser Pro Met Ser Ile Pro Thr
      530              535              540
Asn Thr Met His Tyr Gly Ser
545              550

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<210> 6161  
 <211> 1489  
 <212> DNA  
 <213> Homo sapiens

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<400> 6161
ggctgcatga tcttcagcag attcagtaca gagggaagtg agctgtggga gaggaaggag
60
gatgggggaa atggcaagaa aaggagcacc ctgcttagaa agggaacgga gccgggtgtg
120
gtggctcacg cctgcaatcc anacaccttg ggaggccgaa gcaaggagat cacctgagcc
180
caagagtttg agaccacca catagcaaga ccccatctct attttttggg aaaaaaaaaa
240
aaaagcagca accagcagga tgggtggaaa aaagttgtct aaggtctctc aagatcctct
300
ctgectgtct ctctctctac agagggacag gggaggggtg tagtcagtg gactgaatgt
360
cccatgggg atgaaggatg gttgggttca gggtcctaga gggagggctg gaaggaggga
420
aggagatggc cagagaagga tgtaggacac agaggtgccg cgtgggatca ccaagagggt
480
caggactggc cagaggaagg agaggagatc aaggcaagca tgaggcactt gggagatgca
540
tctgtgctg cacacagctg aaatccccag gaaataagac gggagcaggg tgggtttctg
600
cagccgaggt gagaccaaag tgccagctca ctgccacct cagtaaagac taacttgccc
660
ttccccacaa ctccccctcc agaagtagct tgctctctc tgcctgccac acatcggggg
720
gctcagggaa agctccccct ccctggacag ctagtgttcc ctaggccaag gccagtcctt
780
gcagagatga ggagctggga aatccccctc tcccacccg cagtcacacg cgtgccagat
840
cctgtgtgct gggcttttca cacacagcct cttagacgct tagcctgtga ggcgggtgct
900
gttgccttc ctcccatct tgcaactgag caaacagcct gaaagagaca aaaaccaggt
960
agttagcatg accccaaagc cactccctgg tctacgctgt tctgcagcct gagcctggg
1020

```

tggccagggtg ggggttggtgca gtgagggggg gaaggagaat agcccccaaa aatgctgccg  
 1080  
 gaatgggtaaa gggcctggac tgcaaagcta gtgacttgag ctttatcttg tggcactgga  
 1140  
 gggtttccca gtcattgttaa tgatacaatc agatttgctg tgtcttcaag ttaccatggt  
 1200  
 aaccgtactt ccaccacca agagtggatt ggagaaggca aaactagggc agagaagcca  
 1260  
 gggagtgttg agaaggtctg aaccagaca gtgggcagct gggcccaag acggatgggg  
 1320  
 gactccagaa gcgtggagct ggcagagaga aacctgcccg gggcatcaga gaaaaggcg  
 1380  
 actgtgcagg aacagagtag atgaggtggg gaacctttgg gtaagaagag ctgaatcagg  
 1440  
 agcattgagg cagcggtttt caaacctcag aagcaacagc agggccggc  
 1489

<210> 6162

<211> 58

<212> PRT

<213> Homo sapiens

<400> 6162

Gly	Cys	Met	Ile	Phe	Ser	Arg	Phe	Ser	Thr	Glu	Gly	Ser	Glu	Leu	Trp
1			5						10				15		
Glu	Arg	Lys	Glu	Asp	Gly	Gly	Asn	Gly	Lys	Lys	Arg	Ser	Thr	Leu	Leu
			20				25					30			
Arg	Lys	Gly	Thr	Glu	Pro	Gly	Val	Val	Ala	His	Ala	Cys	Asn	Pro	Xaa
		35				40						45			
Thr	Leu	Gly	Gly	Arg	Ser	Lys	Glu	Ile	Thr						
	50				55										

<210> 6163

<211> 713

<212> DNA

<213> Homo sapiens

<400> 6163

gtggaaatga gcctctcatt aaaacacgtg ctttctggga gccgtgatga acgtgagtgt  
 60  
 gagatgagtc cagctgcggt cagagccatg ggatgtgggt cactgtgacc cagtgggtca  
 120  
 caggtgctga gcaaggaagg gctgggaggg tcaagcaaaa tctacaagaa aaatctaaag  
 180  
 gggccagacc tctgccagga aaagcaggcc tggctctgct gaaaccccaa tcacgctctg  
 240  
 atggataccg gtacctgggc aaggataccg tggatggact tgattcttct ctccctgaaat  
 300  
 gtacgagaag gtgcatgcgg ggatttcggc tgcctgaaaa gcaacctctt aaaacccgag  
 360  
 tgtcattttt agaatacaaa aggaaggaag gcagtggctg gctgcaactg tcagtaacga  
 420  
 gatctggagc ttttcgcctt aaggtcactg tttaaaactc tgccctgggt cagttgtaac  
 480

agaaagtcac aactccctca caggcatcag ggtgcaactt tgaatgccaa gaggggctgt  
540  
gtctgttggt taccacgcgg cgagctcccg ggacacctcc tgacacctcc tgacagtgtc  
600  
tttttctcta ggagctctct ctcttccca cccaccatggc ggcctggcct ggaggggagg  
660  
cattggggac tgagtccttc cccgacaggg agtctctctc cccctggcgc cgc  
713

```
<210> 6164
<211> 120
<212> PRT
<213> Homo sapiens
```

```

<400> 6164
Met Trp Val Thr Val Thr Gln Trp Val Thr Gly Ala Glu Gln Gly Arg
  1                    5                    10                    15
Ala Gly Arg Leu Lys Gln Asn Leu Gln Glu Lys Ser Lys Gly Ala Gln
  20                    25                    30
Pro Leu Pro Gly Lys Ala Gly Leu Ala Leu Leu Lys Pro Gln Ser Arg
  35                    40                    45
Ser Asp Gly Tyr Arg Tyr Leu Gly Lys Asp Thr Val Asp Gly Leu Asp
  50                    55                    60
Ser Ser Leu Leu Lys Cys Thr Arg Arg Cys Met Arg Gly Phe Arg Leu
  65                    70                    75
Pro Glu Lys Gln Pro Ser Lys Thr Arg Val Ser Phe Leu Glu Ser Lys
  80                    85                    90                    95
Arg Lys Glu Gly Ser Gly Trp Leu His Trp Ser Val Thr Arg Ser Gly
  100                    105                    110
Ala Phe Arg Leu Lys Val Thr Val
  115                    120

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```
<210> 6165
<211> 1004
<212> DNA
<213> Homo sapiens
```

```

<400> 6165
cccagccgga tcgggcggcg aaggccggcg cggcgagcag caaccatgtc ggtgttcggg
600
aagctgttct gggctggagg gggtaaaggcc ggcaagggcg gcccgacccc ccaggaggcc
120
atccagcggc tgcgggacac ggaagagatg ttaagcaaga aacaggagtt cctggagaag
180
aaaaatcgagc agggagctgac ggccgcctaag aagcacggca ccaaaaaaca gcgcgcggcc
240
ctccaggcac tgaagcgtaa gaagagggtat gagaagcagc tggcgcatag cgacggcaca
300
ttatcaacca tcgagttcca gcgggaggcc ctggagaatg ccaaccacaa caccgaggtg
360
ctcaagaaca tgggctatgc cgccaaggcc atgaaggcgg cccatgacaa catggacatc
420
gataaagtgt atgagttaat gcaggacatt gctgaccagc aagaacttgc agaggagatt
480

```

tcaacagcaa tttcgaacc ttaggggttt ggagaagagt ttgacgagga tgagctcatg  
 540  
 gcggaattag aagaactaga acaggaggaa ctagacaaga atttgctgga aatcagtgga  
 600  
 cccgaacag tccctctacc aaatgttccc tctatagccc taccatcaaa acccgccaag  
 660  
 aagaaagaag aggaggacga cgacatgaag gaattggaga actgggctgg atccatgtaa  
 720  
 tgggggtccag cgctggctgg gccagacag actgtggctgg cctgcgcagc gagcaggcgt  
 780  
 gtgcgtgtgt ggggcaggca ggatgtggcg caggcagggt ccatcgcttt cgactctcac  
 840  
 tccaaagcag tagggccgag ttgctgtcca ctctctgcat agcatggctt gcacctggga  
 900  
 gttggccggg gggagggggg cgagcgggct ggcacgtgcc tgctgtttat aatgttgaat  
 960  
 ttctgtaaaa taaactgtat ttgcaaatcc aaaaaaaaaa aaaa  
 1004

<210> 6166

<211> 239

<212> PRT

<213> Homo sapiens

<400> 6166

Pro Ser Arg Ile Gly Arg Arg Arg Pro Ala Arg Arg Ala Ala Thr Met  
 1 5 10 15  
 Ser Val Phe Gly Lys Leu Phe Gly Ala Gly Gly Gly Lys Ala Gly Lys  
 20 25 30  
 Gly Gly Pro Thr Pro Gln Glu Ala Ile Gln Arg Leu Arg Asp Thr Glu  
 35 40 45  
 Glu Met Leu Ser Lys Lys Gln Glu Phe Leu Glu Lys Lys Ile Glu Gln  
 50 55 60  
 Glu Leu Thr Ala Ala Lys Lys His Gly Thr Lys Asn Lys Arg Ala Ala  
 65 70 75 80  
 Leu Gln Ala Leu Lys Arg Lys Lys Arg Tyr Glu Lys Gln Leu Ala Gln  
 85 90 95  
 Ile Asp Gly Thr Leu Ser Thr Ile Glu Phe Gln Arg Glu Ala Leu Glu  
 100 105 110  
 Asn Ala Asn Thr Asn Thr Glu Val Leu Lys Asn Met Gly Tyr Ala Ala  
 115 120 125  
 Lys Ala Met Lys Ala Ala His Asp Asn Met Asp Ile Asp Lys Val Asp  
 130 135 140  
 Glu Leu Met Gln Asp Ile Ala Asp Gln Gln Glu Leu Ala Glu Glu Ile  
 145 150 155 160  
 Ser Thr Ala Ile Ser Lys Pro Val Gly Phe Gly Glu Glu Phe Asp Glu  
 165 170 175  
 Asp Glu Leu Met Ala Glu Leu Glu Glu Leu Glu Gln Glu Glu Leu Asp  
 180 185 190  
 Lys Asn Leu Leu Glu Ile Ser Gly Pro Glu Thr Val Pro Leu Pro Asn  
 195 200 205  
 Val Pro Ser Ile Ala Leu Pro Ser Lys Pro Ala Lys Lys Lys Glu Glu  
 210 215 220  
 Glu Asp Asp Asp Met Lys Glu Leu Glu Asn Trp Ala Gly Ser Met



225

230

235

&lt;210&gt; 6167

&lt;211&gt; 1220

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6167

ngccatacag catttttagtt ttgttcttct cattaactga agtcacgagg tatgcctcct  
60  
tggaactcc aacagttaag agattctcat gtattccatg aaataaaaag caaagaaaaa  
120  
tcaaaacttgt cttaatgaga tggaagtgtt ggatcaaaca ctgattgagc tgttctatgt  
180  
cctccacttc cccagtgcct tctctctctc cgggtctgcg cggacgcggc ctccttacct  
240  
catttgcct cgcctctccc cgtccctcta cgcgttttgg tccctgtttg gtgctttctg  
300  
tttgagcta cggcagttag tatgtatgtg acggaccccg agtcacccgc ggcctgggac  
360  
ccctgcctac cctccgtctc gccagccgag ctgtggaact agcgcgtgcc ccctcgccga  
420  
cctcggcgtc tccggtccgc ccctcacttg tgggtgggcg cagctcctgg tccctcagct  
480  
gcgcgccgcc ccaecgggcc gggctgctgg tctagggggg ccgcatctcc ctggttttcc  
540  
aagggtctaag gtcgtgattc tagggcggct gggcgtccag ggcctcgggt ggggtggcgt  
600  
gtctgccctt tttatctccc cgcaaggccc ccagtcttct agggaaagcca gtcagtgaag  
660  
cgcgagggtc cgggcgcgcc gagagagagt ccagtcttct aggaccgagt agtcctgggc  
720  
cacctccgc ctctgctgtc agaagcagca gctgccgcg tggaatccaa aatttcggga  
780  
gctgtgaccc tttcctcatg taaaacgagt agtcttgac gatctgggca taggaaccaa  
840  
tcagaaacaa tcgcttcagc aatcaagacc attgttctac atggaggaa ccatggatac  
900  
ctctgagcct ctatctgcat taccattcac tgggcagcag tcttttgagc caagtggcaa  
960  
atttggacag tatccatcga tgcagatgaa ccacatccag gcactgggga agtggaggac  
1020  
atagaacagc tcaatcagtg tttgatccaa cacttccatc tcattaagac aagtttgatt  
1080  
tttctttgct ttttatttca tggatacat gagaatctct taactgttgg agtttccaag  
1140  
gaggcatacc tcatgacttc agttaatgga aagaacaaaa ctaaaatgct gtatggccaa  
1200  
agccacaaaag ggaaggatcc  
1220

&lt;210&gt; 6168

&lt;211&gt; 90

&lt;212&gt; PRT

<213> Homo sapiens

<400> 6168

Ala Lys Trp Gln Ile Trp Thr Val Ser Ile Asp Ala Asp Glu Pro His  
 1 5 10 15  
 Pro Gly Thr Gly Glu Val Glu Asp Ile Glu Gln Leu Asn Gln Cys Leu  
 20 25 30  
 Ile Gln His Phe His Leu Ile Lys Thr Ser Leu Ile Phe Leu Cys Phe  
 35 40 45  
 Leu Phe His Gly Ile His Glu Asn Leu Leu Thr Val Gly Val Ser Lys  
 50 55 60  
 Glu Ala Tyr Leu Met Thr Ser Val Asn Gly Lys Asn Lys Thr Lys Met  
 65 70 75 80  
 Leu Tyr Gly Gln Ser His Lys Gly Lys Asp  
 85 90

<210> 6169

<211> 720

<212> DNA

<213> Homo sapiens

<400> 6169

tgagggttc gatcccttct ctgatttgct gtcagccatg aacggatgga tgtgatgcct  
 60  
 gctagccaaa aggtttccct ctgtgtgttg cagtcctgtg gcattatgca tgccccctcc  
 120  
 cagtgaacccc aggtttttta tggctgtgaa acacgtttaa atttcagggt aagacgtgac  
 180  
 cttttgaggt gactataact gaagattgct ttacagaagc ccaaaaaggt tttttgagtc  
 240  
 atgatgcaag aatctgggac tgagacaaaa agtaacggtt cagccatcca gaatgggtcg  
 300  
 ggcggcagca accacttact agagtgcggc ggtcttcggg aggggcggtc caacggagag  
 360  
 acgcccggcg tggacatcgg ggcagctgac ctgccccacg cccagcagca gcagcaacag  
 420  
 tggcatctca taaacatca gccctctagg agtcccagca gttggcttaa gagactaatt  
 480  
 tcaagccctt gggagtgtga agtcctgcag gtcccttgtg gggagcagtt gctgagacga  
 540  
 agatgagtgg acctgtgtgt cagcctaacc cttccccatt ttgaataaaa ttattctttg  
 600  
 gagaaatggt tccactgct ttcatgcaaa aataaaaaatt aaacgaaaaa cagcttaagc  
 660  
 ctgtgaagaa ggaaatactg agctagccag caaaagagag aaagaagagg aggggagagg  
 720

<210> 6170

<211> 101

<212> PRT

<213> Homo sapiens

<400> 6170

Met Met Gln Glu Ser Gly Thr Glu Thr Lys Ser Asn Gly Ser Ala Ile

```

1           5           10           15
Gln Asn Gly Ser Gly Gly Ser Asn His Leu Leu Glu Cys Gly Gly Leu
      20      25      30
Arg Glu Gly Arg Ser Asn Gly Glu Thr Pro Ala Val Asp Ile Gly Ala
      35      40      45
Ala Asp Leu Ala His Ala Gln Gln Gln Gln Gln Trp His Leu Ile
      50      55      60
Asn His Gln Pro Ser Arg Ser Pro Ser Ser Trp Leu Lys Arg Leu Ile
      65      70      75      80
Ser Ser Pro Trp Glu Leu Glu Val Leu Gln Val Pro Cys Gly Glu Gln
      85      90      95
Leu Leu Arg Arg Arg
      100

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&lt;210&gt; 6171

&lt;211&gt; 1130

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6171

```

nncccgctag gagttcctag taaagtggcg ggagccgcag ctatggagcc gcaggaggag
60
agagaaacgc aggttgctgc gtggttaaaa aaaatatttg gagatcatcc tattccacag
120
tatgaggtga acccacggac cacagagatt ttacatcacc tttcagaacg caacagggtc
180
cgggacaggg atgtctacct ggtaatagag gacttgaagc agaaagcaag tgaatacgag
240
tcagaagcca agtatcttca agaccttctc atggagagtg tgaatttttc ccccgccaat
300
ctctctagca ctggttccag gtatctgaat gctttggttg acagtgcggt ggcccttgaa
360
acaaaggata cctcgctagc tagttttatc cctgcagtga atgatttgac ctctgatctc
420
tttcgtacca aatccaaaag tgaagaaatc aagattgaac tggaaaaact tgaaaaaat
480
ttaactgcaa ctttagtatt agaaaaatgt ctacaagagg atgtcaagaa agcagagttg
540
catctgtcta cagaaagggc caaagttgat aatcgctcgc agaacaatgga ctttctaaaa
600
gcaaagtcag aggaattcag atttggaatc aaggctgcag aggagcaact ttcagccaga
660
ggcatggatg cttctctgtc tcatcagtc ttagtagcac tatcagagaa actggcaaga
720
ttaagcaac agactatacc tttgaagaaa aaattggagt cctattttaga cttaatgccg
780
aatccgtctc ttgctcaagt gaaaattgaa gaagcaaagc gagaactaga tagcattgaa
840
gctgaactta caagaagagt agacatgatg gaactgtgac aaaagccaaa taaacatcct
900
ttccctaac aaagtaaatt gaataggact ttacagagtt ctttttcctc ttggcatttc
960
ctaataacaa aactttctgt gttcttagat tacagaatat cataattgat agaatatggg
1020

```

ttcttactgt ggtgtgcatt tttgtgccca aatacatagt ttccatatta aaaagccttt  
 1080  
 tctcttataaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 1130

<210> 6172

<211> 292

<212> PRT

<213> Homo sapiens

<400> 6172

Xaa Pro Leu Gly Val Pro Ser Lys Val Ala Gly Ala Ala Ala Met Glu  
 1 5 10 15  
 Pro Gln Glu Glu Arg Glu Thr Gln Val Ala Ala Trp Leu Lys Lys Ile  
 20 25 30  
 Phe Gly Asp His Pro Ile Pro Gln Tyr Glu Val Asn Pro Arg Thr Thr  
 35 40 45  
 Glu Ile Leu His His Leu Ser Glu Arg Asn Arg Val Arg Asp Arg Asp  
 50 55 60  
 Val Tyr Leu Val Ile Glu Asp Leu Lys Gln Lys Ala Ser Glu Tyr Glu  
 65 70 75 80  
 Ser Glu Ala Lys Tyr Leu Gln Asp Leu Leu Met Glu Ser Val Asn Phe  
 85 90 95  
 Ser Pro Ala Asn Leu Ser Ser Thr Gly Ser Arg Tyr Leu Asn Ala Leu  
 100 105 110  
 Val Asp Ser Ala Val Ala Leu Glu Thr Lys Asp Thr Ser Leu Ala Ser  
 115 120 125  
 Phe Ile Pro Ala Val Asn Asp Leu Thr Ser Asp Leu Phe Arg Thr Lys  
 130 135 140  
 Ser Lys Ser Glu Glu Ile Lys Ile Glu Leu Glu Lys Leu Glu Lys Asn  
 145 150 155 160  
 Leu Thr Ala Thr Leu Val Leu Glu Lys Cys Leu Gln Glu Asp Val Lys  
 165 170 175  
 Lys Ala Glu Leu His Leu Ser Thr Glu Arg Ala Lys Val Asp Asn Arg  
 180 185 190  
 Arg Gln Asn Met Asp Phe Leu Lys Ala Lys Ser Glu Glu Phe Arg Phe  
 195 200 205  
 Gly Ile Lys Ala Ala Glu Glu Gln Leu Ser Ala Arg Gly Met Asp Ala  
 210 215 220  
 Ser Leu Ser His Gln Ser Leu Val Ala Leu Ser Glu Lys Leu Ala Arg  
 225 230 235 240  
 Leu Lys Gln Gln Thr Ile Pro Leu Lys Lys Lys Leu Glu Ser Tyr Leu  
 245 250 255  
 Asp Leu Met Pro Asn Pro Ser Leu Ala Gln Val Lys Ile Glu Glu Ala  
 260 265 270  
 Lys Arg Glu Leu Asp Ser Ile Glu Ala Glu Leu Thr Arg Arg Val Asp  
 275 280 285  
 Met Met Glu Leu  
 290

<210> 6173

<211> 1483

<212> DNA

<213> Homo sapiens

<400> 6173  
agagagagag actagttctc tcttactcta ggcctttcgg ttgcgcgac ggggcaggaa  
60  
agcgtgctg cggtcaagag agtgggcgct ctgcggcgc tgacgatgga agaactggag  
120  
caaggcctgt tgatgcagcc atgggcgtgg ctacagcttg cagagaacte cctcttgcc  
180  
aaggttttta tcaccaagca gggctatgcc ttgttggtt cagatcttca acaggtgtgg  
240  
catgaacagg tggacactag tgtggtcagc cagcgagcca aggagctgaa caagcggctc  
300  
actgctcctc ctgcagcttt cctctgtcat ttggataatc tccttcgccc attgttgaag  
360  
gacgtgctc accctagcga agctacctc tcctgtgatt gtgtggcaga tgcaactgatt  
420  
ctacgggtgc gaagtgaact ccttggtcct ccttctatt ggaatttcca ctgcatgcta  
480  
gctagtcctt ccctggtctc ccaacatttg attcgtcctc tgatgggcat gactctggca  
540  
ttacagtgcc aagtggagg gctagcaacg ttacttcata tgaagacct agagatccaa  
600  
gactaccagg agagtggggc tacgtgatt cgagatcgat tgaagacaga accatttgaa  
660  
gaaaattcct tcttgaaca atttatgata gagaactgc cagaggcatg cagcattggt  
720  
gatggaaagc cctttgtcat gaatctgcag gatctgtata tggcagtcac cacacaagag  
780  
gtccaagtgg gacagaagca tcaaggcgt ggagatcctc atacctcaa cagtgtcttc  
840  
ctgcaaggaa tcgatagcca atgtgtaaac cagccagaac aactggtctc ctgagcccca  
900  
accctctcag cacttgagaa agagtccacg ggtacttcag gccctctgca gagacctcag  
960  
ctgtcaaagg tcaaggaggaa gaatccaagg ggtctcttca gttaatctgt tgtggcctca  
1020  
gctgctgagg atggacttgg agaatagtct ccaagcttca ccttgaaaga agcttacatg  
1080  
gcagcaatat ttctaaaata gtgatacagt cagaggcctc ctgtaagggc gagagaactg  
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<211> 299  
 <212> PRT  
 <213> Homo sapiens

<400> 6174  
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 Gly Tyr Ala Leu Leu Val Ser Asp Leu Gln Gln Val Trp His Glu Gln  
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 Val Asp Thr Ser Val Val Ser Gln Arg Ala Lys Glu Leu Asn Lys Arg  
 50 55 60  
 Leu Thr Ala Pro Pro Ala Ala Phe Leu Cys His Leu Asp Asn Leu Leu  
 65 70 75 80  
 Arg Pro Leu Leu Lys Asp Ala Ala His Pro Ser Glu Ala Thr Phe Ser  
 85 90 95  
 Cys Asp Cys Val Ala Asp Ala Leu Ile Leu Arg Val Arg Ser Glu Leu  
 100 105 110  
 Ser Gly Leu Pro Phe Tyr Trp Asn Phe His Cys Met Leu Ala Ser Pro  
 115 120 125  
 Ser Leu Val Ser Gln His Leu Ile Arg Pro Leu Met Gly Met Ser Leu  
 130 135 140  
 Ala Leu Gln Cys Gln Val Arg Glu Leu Ala Thr Leu Leu His Met Lys  
 145 150 155 160  
 Asp Leu Glu Ile Gln Asp Tyr Gln Glu Ser Gly Ala Thr Leu Ile Arg  
 165 170 175  
 Asp Arg Leu Lys Thr Glu Pro Phe Glu Glu Asn Ser Phe Leu Glu Gln  
 180 185 190  
 Phe Met Ile Glu Lys Leu Pro Glu Ala Cys Ser Ile Gly Asp Gly Lys  
 195 200 205  
 Pro Phe Val Met Asn Leu Gln Asp Leu Tyr Met Ala Val Thr Thr Gln  
 210 215 220  
 Glu Val Gln Val Gly Gln Lys His Gln Gly Ala Gly Asp Pro His Thr  
 225 230 235 240  
 Ser Asn Ser Ala Ser Leu Gln Gly Ile Asp Ser Gln Cys Val Asn Gln  
 245 250 255  
 Pro Glu Gln Leu Val Ser Ser Ala Pro Thr Leu Ser Ala Pro Glu Lys  
 260 265 270  
 Glu Ser Thr Gly Thr Ser Gly Pro Leu Gln Arg Pro Gln Leu Ser Lys  
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 <211> 349  
 <212> DNA  
 <213> Homo sapiens

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 240  
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<210> 6176  
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 <212> PRT  
 <213> Homo sapiens

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 Gly Glu Thr Asn Asp Phe Glu Leu Lys Asn Gln Leu Leu Asp Pro  
 35 40 45  
 Asp Ile Lys Arg Leu Pro Trp Leu Asn Arg Ser Gln Thr Val Val Glu  
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 <211> 1536  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 6178

&lt;211&gt; 310

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6178

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 65 70 75 80  
 Ile Gln Glu Cys Val Pro Glu Asp Leu Glu Leu Lys Lys Lys Ile Phe  
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 Ala Gln Leu Asp Ser Ile Ile Asp Asp Arg Val Ile Leu Ser Ser Ser  
 100 105 110  
 Thr Ser Cys Leu Met Pro Ser Lys Leu Phe Ala Gly Leu Val His Val



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Lys Gln Cys Ile Val Ala His Pro Val Asn Pro Pro Tyr Tyr Ile Pro
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145      150      155      160
Arg Thr His Ala Leu Met Lys Lys Ile Gly Xaa Val Pro His Ala Ser
      165      170      175
Pro Glu Gly Gly Gly Arg Leu Arg Ser Glu Pro Pro Ala Ile Cys Asn
      180      185      190
His Gln Arg Gly Leu Ala Ala Ser Gly Gly Arg Asn Xaa Cys Leu Leu
      195      200      205
Val Thr Trp Xaa Leu Val Met Ser Glu Gly Leu Gly Met Arg Tyr Ala
      210      215      220
Phe Ile Gly Pro Leu Glu Thr Met His Leu Asn Ala Glu Gly Met Leu
225      230      235      240
Ser Tyr Cys Asp Arg Tyr Ser Glu Gly Ile Lys His Val Leu Gln Thr
      245      250      255
Phe Gly Pro Ile Pro Glu Phe Ser Arg Ala Thr Ala Glu Lys Val Asn
      260      265      270
Gln Asp Met Cys Met Lys Val Pro Asp Asp Pro Glu His Leu Ala Ala
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Arg Arg Gln Trp Arg Asp Glu Cys Leu Met Arg Leu Ala Lys Leu Lys
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Ser Gln Val Gln Pro Gln
305      310

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<210> 6179  
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 <212> DNA  
 <213> Homo sapiens

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660

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<210> 6180  
 <211> 751  
 <212> PRT  
 <213> Homo sapiens

<400> 6180  
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 35 40 45  
 Asp Leu Tyr Glu Leu Val Gln Tyr Ala Gly Asn Ile Ile Pro Arg Leu  
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 Tyr Leu Leu Ile Thr Val Gly Val Val Tyr Val Lys Ser Phe Pro Gln  
 65 70 75 80  
 Ser Arg Lys Asp Ile Leu Lys Asp Leu Val Glu Met Cys Arg Gly Val  
 85 90 95  
 Gln His Pro Leu Arg Gly Leu Phe Leu Arg Asn Tyr Leu Leu Gln Cys  
 100 105 110  
 Thr Arg Asn Ile Leu Pro Asp Glu Gly Glu Pro Thr Asp Glu Glu Thr  
 115 120 125  
 Thr Gly Asp Ile Ser Asp Ser Met Asp Phe Val Leu Leu Asn Phe Ala  
 130 135 140  
 Glu Met Asn Lys Leu Trp Val Arg Met Gln His Gln Gly His Ser Arg  
 145 150 155 160  
 Asp Arg Glu Lys Arg Glu Arg Glu Arg Gln Glu Leu Arg Ile Leu Val  
 165 170 175  
 Gly Thr Asn Leu Val Arg Leu Ser Xaa Ser Trp Arg Cys Lys Cys Gly  
 180 185 190  
 Thr Leu Gln Gln Ile Val Leu Thr Gly Ile Leu Glu Gln Val Val Asn

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Cys Arg Asp Ala Leu Ala Gln Glu Tyr Leu Met Glu Cys Ile Ile Gln		
210	215	220
Val Phe Pro Asp Glu Phe His Leu Gln Thr Leu Asn Pro Phe Leu Arg		
225	230	235
Ala Cys Ala Glu Leu His Gln Asn Val Asn Val Lys Asn Ile Ile Ile		240
245	250	255
Ala Leu Ile Asp Arg Leu Ala Leu Phe Ala His Arg Glu Asp Gly Pro		
260	265	270
Gly Ile Pro Ala Asp Ile Lys Leu Phe Asp Ile Phe Ser Gln Gln Val		
275	280	285
Ala Thr Val Ile Gln Ser Arg Gln Asp Met Pro Ser Glu Asp Val Val		
290	295	300
Ser Leu Gln Val Ser Leu Ile Asn Leu Ala Met Lys Cys Tyr Pro Asp		
305	310	315
Arg Val Asp Tyr Val Asp Lys Val Leu Glu Thr Thr Val Glu Ile Phe		
325	330	335
Asn Lys Leu Asn Leu Glu His Ile Ala Thr Ser Ser Ala Val Ser Lys		
340	345	350
Glu Leu Thr Arg Leu Leu Lys Ile Pro Val Asp Thr Tyr Asn Asn Ile		
355	360	365
Leu Thr Val Leu Lys Leu Lys His Phe His Pro Leu Phe Glu Tyr Phe		
370	375	380
Asp Tyr Glu Ser Arg Lys Ser Met Ser Cys Tyr Val Leu Ser Asn Val		
385	390	395
Leu Asp Tyr Asn Thr Glu Ile Val Ser Gln Asp Gln Val Asp Ser Ile		
405	410	415
Met Asn Leu Val Ser Thr Leu Ile Gln Asp Gln Pro Asp Gln Pro Val		
420	425	430
Glu Asp Pro Asp Pro Glu Asp Phe Ala Asp Glu Gln Ser Leu Val Gly		
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465	470	475
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485	490	495
Phe Arg Tyr Lys Glu Asn Ser Lys Trp Met Thr Asn Gly Lys Arg Asn		
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Ala Arg Arg Phe Phe His Leu Pro Xaa Gln Thr Ile Ser Ala Leu Ile		
515	520	525
Lys Ala Glu Leu Ala Glu Leu Pro Leu Arg Leu Phe Leu Gln Gly Ala		
530	535	540
Leu Ala Ala Gly Glu Ile Gly Phe Glu Asn His Glu Thr Val Ala Tyr		
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Glu Phe Met Ser Gln Ala Phe Ser Leu Tyr Glu Asp Glu Ile Ser Asp		
565	570	575
Ser Lys Ala Gln Leu Ala Ala Ile Thr Leu Ile Ile Gly Thr Phe Glu		
580	585	590
Arg Met Lys Cys Phe Ser Glu Glu Asn His Glu Pro Leu Arg Thr Gln		
595	600	605
Cys Ala Leu Ala Ala Ser Lys Leu Leu Lys Lys Pro Asp Gln Gly Arg		
610	615	620
Ala Glu His Leu Cys Thr Ser Leu Trp Ser Gly Arg Asn Thr Asp Lys		

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	660		665		670	
Gln Leu Phe Ile Glu Ile Leu Asn Arg Tyr Ile Tyr Phe Tyr Glu Lys						
	675		680		685	
Glu Asn Asp Ala Val Thr Ile Gln Val Leu Asn Gln Leu Ile Gln Lys						
	690		695		700	
Ile Arg Glu Asp Leu Pro Asn Leu Glu Ser Ser Glu Glu Thr Glu Gln						
	705		710		715	
Ile Asn Lys His Phe His Asn Thr Leu Glu His Leu Arg Leu Arg Arg						
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Glu Ser Pro Glu Ser Glu Gly Pro Ile Tyr Glu Gly Leu Ile Leu						
	740		745		750	

&lt;210&gt; 6181

&lt;211&gt; 1135

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6181

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<210> 6182  
 <211> 236  
 <212> PRT  
 <213> Homo sapiens

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 Glu Val Phe Phe Leu Pro Asp Leu Pro Thr Thr Pro Tyr Phe Ser Arg  
 35 40 45  
 Asp Ala Gln Lys His Asp Val Glu Val Leu Glu Arg Asn Phe Gln Thr  
 50 55 60  
 Ile Leu Cys Glu Phe Glu Thr Leu Tyr Lys Ala Phe Ser Asn Cys Ser  
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 Leu Pro Gln Gly Trp Lys Met Asn Ser Thr Pro Ser Gly Glu Trp Phe  
 85 90 95  
 Thr Phe Tyr Leu Val Asn Gln Gly Val Cys Val Pro Arg Asn Cys Arg  
 100 105 110  
 Lys Cys Pro Arg Thr Tyr Arg Leu Leu Gly Ser Leu Arg Thr Cys Ile  
 115 120 125  
 Gly Asn Asn Val Phe Gly Asn Ala Cys Ile Ser Val Leu Ser Pro Gly  
 130 135 140  
 Thr Val Ile Thr Glu His Tyr Gly Pro Thr Asn Ile Arg Ile Arg Cys  
 145 150 155 160  
 His Leu Gly Leu Lys Thr Pro Asn Gly Cys Glu Leu Val Val Gly Gly  
 165 170 175  
 Glu Pro Gln Cys Trp Ala Glu Gly Arg Cys Leu Leu Phe Asp Asp Ser  
 180 185 190  
 Phe Leu His Ala Ala Phe His Glu Gly Ser Ala Glu Asp Gly Pro Arg  
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 Arg Gln Ala Leu Asp Phe Ile Phe Ala Pro Gly Arg  
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<210> 6183  
 <211> 2530  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 6184

&lt;211&gt; 308

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6184

Arg Ala Ser Thr Pro Tyr Leu Arg Pro Cys Leu Arg Glu Leu Arg Gly  
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 Leu Gly Pro Gly Pro Val His Gly Arg Asp Pro Gly Pro Gly Gly Pro  
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 Gly Met Gly Asn Arg Gly Gly Phe Arg Gly Gly Phe Gly Ser Gly Ile  
 35 40 45  
 Arg Gly Arg Gly Arg Gly Arg Gly Arg Gly Arg Gly Arg Gly  
 50 55 60  
 Ala Arg Gly Gly Lys Ala Glu Asp Lys Glu Trp Met Pro Val Thr Lys  
 65 70 75 80  
 Leu Gly Arg Leu Val Lys Asp Met Lys Ile Lys Ser Leu Glu Glu Ile  
 85 90 95  
 Tyr Leu Phe Ser Leu Pro Ile Lys Glu Ser Glu Ile Ile Asp Phe Phe  
 100 105 110  
 Leu Gly Ala Ser Leu Lys Asp Glu Val Leu Lys Ile Met Pro Val Gln  
 115 120 125  
 Lys Gln Thr Arg Ala Gly Gln Arg Thr Arg Phe Lys Ala Phe Val Ala  
 130 135 140  
 Ile Gly Asp Tyr Asn Gly His Val Gly Leu Gly Val Lys Cys Ser Lys



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145          150          155          160
Glu Val Ala Thr Ala Ile Arg Gly Ala Ile Ile Leu Ala Lys Leu Ser
          165          170          175
Ile Val Pro Val Arg Arg Gly Tyr Trp Gly Asn Lys Ile Gly Lys Pro
          180          185          190
His Thr Val Pro Cys Lys Val Thr Gly Arg Cys Gly Ser Val Leu Val
          195          200          205
Arg Leu Ile Pro Ala Pro Arg Gly Thr Gly Ile Val Ser Ala Pro Val
          210          215          220
Pro Lys Lys Leu Leu Met Met Ala Gly Ile Asp Asp Cys Tyr Thr Ser
          225          230          235          240
Ala Arg Gly Cys Thr Ala Thr Leu Gly Asn Phe Ala Lys Ala Thr Phe
          245          250          255
Asp Ala Ile Ser Lys Thr Tyr Ser Tyr Leu Thr Pro Asp Leu Trp Lys
          260          265          270
Glu Thr Val Phe Thr Lys Ser Pro Tyr Gln Glu Phe Thr Asp His Leu
          275          280          285
Val Lys Thr His Thr Arg Val Ser Val Gln Arg Thr Gln Ala Pro Ala
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Val Ala Thr Thr
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<210> 6185
<211> 1231
<212> DNA
<213> Homo sapiens

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180
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300
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360
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420
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600
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aaggggaagc cagatccgag gcccacactt gcatgttttc aggtgaggtc cagagatata
720
tccagagagg agtggaaggg ctcgagagacc tacagcccca atactgcata tgggtgggac
780

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<210> 6186  
 <211> 133  
 <212> PRT  
 <213> Homo sapiens

<400> 6186  
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 20 25 30  
 Gly Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly  
 35 40 45  
 Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln  
 50 55 60  
 Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser  
 65 70 75 80  
 Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr  
 85 90 95  
 Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro  
 100 105 110  
 Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser  
 115 120 125  
 Thr Arg Leu Lys Thr  
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<210> 6187  
 <211> 909  
 <212> DNA  
 <213> Homo sapiens

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 360  
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 540  
 catcgctacc agttctttgt ctatcttcag gaaggaaaag tcattctctt ccttcccaag  
 600  
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 660  
 gaacctgaag caagcaccca gtcatgacc cagaactacc aggactcacc aacctccag  
 720  
 gctcccagag aaagggccag cgagcccaag cacaaaaacc aggcggagat agctgcctgc  
 780  
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 900  
 agggcaaaa  
 909

&lt;210&gt; 6188

&lt;211&gt; 227

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6188

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 20 25 30  
 Glu Ala Leu Leu Asp Glu Asp Thr Leu Phe Cys Gln Gly Leu Glu Val  
 35 40 45  
 Phe Tyr Pro Glu Leu Gly Asn Ile Gly Cys Lys Val Val Pro Asp Cys  
 50 55 60  
 Asn Asn Tyr Arg Gln Lys Ile Thr Ser Trp Met Glu Pro Ile Val Lys  
 65 70 75 80  
 Phe Pro Gly Ala Val Tyr Gly Ala Thr Tyr Ile Leu Val Met Val Asp  
 85 90 95  
 Pro Asp Ala Pro Ser Arg Ala Glu Pro Arg Gln Arg Phe Trp Arg His  
 100 105 110  
 Trp Leu Val Thr Asp Ile Lys Gly Ala Asp Leu Lys Lys Gly Lys Ile  
 115 120 125  
 Gln Gly Gln Glu Leu Ser Ala Tyr Gln Ala Pro Ser Pro Pro Ala His  
 130 135 140  
 Ser Gly Phe His Arg Tyr Gln Phe Phe Val Tyr Leu Gln Glu Gly Lys  
 145 150 155 160  
 Val Ile Ser Leu Leu Pro Lys Glu Asn Lys Thr Arg Gly Ser Trp Lys

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Met	Asp	Arg	Phe	Leu	Asn	Arg	Phe	His	Leu	Gly	Glu	Pro	Glu	Ala	Ser
			180					185					190		
Thr	Gln	Phe	Met	Thr	Gln	Asn	Tyr	Gln	Asp	Ser	Pro	Thr	Leu	Gln	Ala
			195				200					205			
Pro	Arg	Glu	Arg	Ala	Ser	Glu	Pro	Lys	His	Lys	Asn	Gln	Ala	Glu	Ile
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 <212> DNA  
 <213> Homo sapiens

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 240  
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 300  
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 420  
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 480  
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a

2761

&lt;210&gt; 6190

&lt;211&gt; 576

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6190

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Pro Asp Gly Ala Thr Ala Gln Thr Ser Ala Asp Gly Ser Gln Ala Gln
 20           25           30
Asn Leu Glu Ser Arg Thr Ile Ile Arg Gly Lys Arg Thr Arg Lys Ile
 35           40           45
Asn Asn Leu Asn Val Glu Glu Asn Ser Ser Gly Asp Gln Arg Arg Ala
 50           55           60
Pro Leu Ala Ala Gly Thr Trp Arg Ser Ala Pro Val Pro Val Thr Thr
 65           70           75           80
Gln Asn Pro Pro Gly Ala Pro Pro Asn Val Leu Trp Gln Thr Pro Leu
 85           90           95
Ala Trp Gln Asn Pro Ser Gly Trp Gln Asn Gln Thr Ala Arg Gln Thr
100           105           110
Pro Pro Ala Arg Gln Ser Pro Pro Ala Arg Gln Thr Pro Pro Ala Trp
115           120           125
Gln Thr Gln Asn Pro Val Ala Trp Gln Asn Pro Val Ile Trp Pro Asn
130           135           140
Pro Val Ile Trp Gln Asn Pro Val Ile Trp Pro Asn Pro Ile Val Trp
145           150           155           160
Pro Gly Pro Val Val Trp Pro Asn Pro Leu Ala Trp Gln Asn Pro Pro
165           170           175
Gly Trp Gln Thr Pro Pro Gly Trp Gln Thr Pro Pro Gly Trp Gln Gly
180           185           190
Pro Pro Asp Trp Gln Gly Pro Pro Asp Trp Pro Leu Pro Pro Asp Trp
195           200           205
Pro Leu Pro Pro Asp Trp Pro Leu Pro Thr Asp Trp Pro Leu Pro Pro
210           215           220
Asp Trp Ile Pro Ala Asp Trp Pro Ile Pro Pro Asp Trp Gln Asn Leu
225           230           235           240
Arg Pro Ser Pro Asn Leu Arg Pro Ser Pro Asn Ser Arg Ala Ser Gln
245           250           255
Asn Pro Gly Ala Ala Gln Pro Arg Asp Val Ala Leu Leu Gln Glu Arg
260           265           270
Ala Asn Lys Leu Val Lys Tyr Leu Met Leu Lys Asp Tyr Thr Lys Val
275           280           285
Pro Ile Lys Arg Ser Glu Met Leu Arg Asp Ile Ile Arg Glu Tyr Thr
290           295           300
Asp Val Tyr Pro Glu Ile Ile Glu Arg Ala Cys Phe Val Leu Glu Lys
305           310           315           320
Lys Phe Gly Ile Gln Leu Lys Glu Ile Asp Lys Glu Glu His Leu Tyr
325           330           335
Ile Leu Ile Ser Thr Pro Glu Ser Leu Ala Gly Ile Leu Gly Thr Thr
340           345           350
Lys Asp Thr Pro Lys Leu Gly Leu Leu Val Ile Leu Gly Val Ile

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Phe Met Asn Gly Asn Arg Ala Ser Glu Ala Val Leu Trp Glu Ala Leu
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Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Leu Leu Gly Asp
  385      390      395      400
Leu Arg Lys Leu Leu Thr Tyr Glu Phe Val Lys Gln Lys Tyr Leu Asp
      405      410      415
Tyr Arg Arg Val Pro Asn Ser Asn Pro Pro Glu Tyr Glu Phe Leu Trp
      420      425      430
Gly Leu Arg Ser Tyr His Glu Thr Ser Lys Met Lys Val Leu Arg Phe
      435      440      445
Ile Ala Glu Val Gln Lys Arg Asp Pro Arg Asp Trp Thr Ala Gln Phe
      450      455      460
Met Glu Ala Ala Asp Glu Ala Leu Asp Ala Leu Asp Ala Ala Ala Ala
      465      470      475      480
Glu Ala Glu Ala Arg Ala Glu Ala Arg Thr Arg Met Gly Ile Gly Asp
      485      490      495
Glu Ala Val Ser Gly Pro Trp Ser Trp Asp Asp Ile Glu Phe Glu Leu
      500      505      510
Leu Thr Trp Asp Glu Glu Gly Asp Phe Gly Asp Pro Trp Ser Arg Ile
      515      520      525
Pro Phe Thr Phe Trp Ala Arg Tyr His Gln Asn Ala Arg Ser Arg Phe
      530      535      540
Pro Gln Thr Phe Ala Gly Pro Ile Ile Gly Pro Gly Gly Thr Ala Ser
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Ala Asn Phe Ala Ala Asn Phe Gly Ala Ile Gly Phe Phe Trp Val Glu
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<210> 6191  
 <211> 3021  
 <212> DNA  
 <213> Homo sapiens

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360
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420
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480
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600

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720  
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780  
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840  
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900  
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960  
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1080  
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1200  
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&lt;210&gt; 6192

&lt;211&gt; 815

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6192

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 Gln Asp Ala His Gly Gln Pro Asp Val Ser Ala Phe Asp Phe Thr Ser  
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 Met Met Arg Ala Glu Ser Ser Ala Arg Val Gln Glu Lys His Gly Ala  
 115 120 125  
 Arg Leu Leu Leu Gly Leu Val Gly Asp Cys Leu Val Glu Pro Phe Trp  
 130 135 140  
 Pro Leu Gly Thr Gly Val Ala Arg Gly Phe Leu Ala Ala Phe Asp Ala

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Glu Asn Met His Arg Asn Val Ala Gln Tyr Gly Leu Asp Pro Ala Thr
195          200          205
Arg Tyr Pro Asn Leu Asn Leu Arg Ala Val Thr Pro Asn Gln Val Arg
210          215          220
Asp Leu Tyr Asp Val Leu Ala Lys Glu Pro Val Gln Arg Asn Asn Asp
225          230          235          240
Lys Thr Asp Thr Gly Met Pro Ala Thr Gly Ser Ala Gly Thr Gln Glu
245          250          255
Glu Leu Leu Arg Trp Cys Gln Glu Gln Thr Ala Gly Tyr Pro Gly Val
260          265          270
His Val Ser Asp Leu Ser Ser Ser Trp Ala Asp Gly Leu Ala Leu Cys
275          280          285
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Gln Gly Leu Gly Ala Leu Glu Ala Thr Ala Trp Ala Leu Lys Val Ala
305          310          315          320
Glu Asn Glu Leu Gly Ile Thr Pro Val Val Ser Ala Gln Ala Val Val
325          330          335
Ala Gly Ser Asp Pro Leu Gly Leu Ile Ala Tyr Leu Ser His Phe His
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Ser Ala Phe Lys Ser Met Ala His Ser Pro Gly Pro Val Ser Gln Ala
355          360          365
Ser Pro Gly Thr Ser Ser Ala Val Leu Phe Leu Ser Lys Leu Gln Arg
370          375          380
Thr Leu Gln Arg Ser Arg Ala Lys Asp Leu Leu Gln Glu Asn Ala Glu
385          390          395          400
Asp Ala Gly Gly Lys Lys Leu Arg Leu Glu Met Glu Ala Glu Thr Pro
405          410          415
Ser Thr Glu Val Pro Pro Asp Pro Glu Pro Gly Val Pro Leu Thr Pro
420          425          430
Pro Ser Gln His Gln Glu Ala Gly Ala Gly Asp Leu Cys Ala Leu Cys
435          440          445
Gly Glu His Leu Tyr Val Leu Glu Arg Leu Cys Val Asn Gly His Phe
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Phe His Arg Ser Cys Phe Arg Cys His Thr Cys Glu Ala Thr Leu Trp
465          470          475          480
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485          490          495
Gln His Leu Pro Gln Thr Asp His Lys Ala Glu Gly Ser Asp Arg Gly
500          505          510
Pro Glu Ser Pro Glu Leu Pro Thr Pro Ser Glu Asn Ser Met Pro Pro
515          520          525
Gly Leu Ser Thr Pro Thr Ala Ser Gln Glu Gly Ala Gly Pro Val Pro
530          535          540
Asp Pro Ser Gln Pro Thr Arg Arg Gln Ile Arg Leu Ser Ser Pro Glu
545          550          555          560
Arg Gln Arg Leu Ser Ser Leu Asn Leu Thr Pro Asp Pro Glu Met Glu
565          570          575
Pro Pro Pro Lys Pro Pro Arg Ser Cys Ser Ala Leu Ala Arg His Ala

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      625      630      635      640
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Trp Arg Arg Thr Leu Leu Arg Arg Ala Lys Glu Glu Glu Met Lys Arg
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Phe Cys Lys Ala Gln Thr Ile Gln Arg Arg Leu Asn Glu Ile Glu Ala
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      705      710      715      720
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Trp Gln Leu Asp Gln Glu Leu Arg Gly Tyr Met Asn Arg Glu Glu Asn
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Leu Lys Thr Ala Ala Asp Arg Gln Ala Glu Asp Gln Val Leu Arg Lys
      770      775      780
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Glu Arg Arg Leu Ser Glu Leu Ala Leu Gly Thr Gly Ala Gln Gly
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&lt;210&gt; 6193

&lt;211&gt; 2893

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6193

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&lt;210&gt; 6194

&lt;211&gt; 621

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6194

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Val	Pro	Asn	Val	Phe	Pro	Ser	Ser	Gly	Asp	Phe	Thr	Gln	Thr	Ala	Val
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Phe	Arg	Thr	Tyr	Gly	Thr	Trp	Trp	Asp	Gln	Cys	Pro	Ser	Ala	Ser	Leu
		100						105					110		
Pro	Phe	Lys	Arg	Thr	Pro	Pro	Asn	Phe	Gln	Ser	Gln	Asp	Tyr	Val	Glu
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Pro	Tyr	Ser	Pro	Asn	Pro	Pro	Ala	Glu	Val	Arg	Trp	Glu	Ile	Leu	Trp

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Ser	Glu	Arg	Pro	Thr	Lys	Val	Asn	Ala	Ser	Gln	Ala	Arg	Gln	Phe	Lys				
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Pro	Cys	Ile	Lys	Gln	Ile	Asn	Phe	Pro	Thr	Asn	Leu	Ile	Arg	Leu	Glu				
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Val	Asn	Ser	Ser	Leu	Leu	Glu	Tyr	Tyr	Thr	Glu	Leu	Asp	Ala	Val	Val				
		210				215					220								
Leu	His	Gly	Val	Lys	Asp	Lys	Pro	Val	Leu	Ser	Leu	Lys	Thr	Ser	Leu				
225					230					235					240				
Ile	Asp	Met	Asn	Asp	Ile	Glu	Asp	Asp	Ala	Tyr	Ala	Glu	Lys	Asp	Gly				
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Cys	Gly	Met	Asp	Ser	Leu	Asn	Lys	Lys	Phe	Ser	Ser	Ala	Val	Leu	Gly				
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Glu	Gly	Pro	Asn	Asn	Gly	Tyr	Phe	Asp	Lys	Leu	Pro	Tyr	Glu	Leu	Ile				
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Gln	Leu	Ile	Leu	Asn	His	Leu	Thr	Leu	Pro	Asp	Leu	Cys	Arg	Leu	Ala				
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Gln	Thr	Cys	Lys	Leu	Leu	Ser	Gln	His	Cys	Cys	Asp	Pro	Leu	Gln	Tyr				
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Leu	Glu	Phe	Leu	Gln	Ser	Arg	Cys	Thr	Leu	Val	Gln	Trp	Leu	Asn	Leu				
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Ser	Trp	Thr	Gly	Asn	Arg	Gly	Phe	Ile	Ser	Val	Ala	Gly	Phe	Ser	Arg				
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Phe	Leu	Lys	Val	Cys	Gly	Ser	Glu	Leu	Val	Arg	Leu	Glu	Leu	Ser	Cys				
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Gln	Ala	Phe	Asn	His	Ile	Ala	Lys	Leu	Cys	Ser	Leu	Lys	Arg	Leu	Val				
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Leu	Tyr	Arg	Thr	Lys	Val	Glu	Gln	Thr	Ala	Leu	Leu	Ser	Ile	Leu	Asn				
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Phe	Cys	Ser	Glu	Leu	Gln	His	Leu	Ser	Leu	Gly	Ser	Cys	Val	Met	Ile				
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Glu	Asp	Tyr	Asp	Val	Ile	Ala	Ser	Met	Ile	Gly	Ala	Lys	Cys	Lys	Lys				
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Leu	Arg	Thr	Leu	Asp	Leu	Trp	Arg	Cys	Lys	Asn	Ile	Thr	Glu	Asn	Gly				
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Ile	Ala	Glu	Leu	Ala	Ser	Gly	Cys	Pro	Leu	Leu	Glu	Glu	Leu	Asp	Leu				
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 <213> Homo sapiens

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 Leu Leu Leu Ser Arg Thr Thr Arg Val Lys Pro His Pro Tyr Lys Tyr  
 35 40 45  
 Gln Val His Pro Asn Ser Ser Leu Ala Gln Lys Trp Cys Tyr Ile His  
 50 55 60  
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 65 70 75 80  
 Ala Asn Glu Leu Cys Pro Gly Asn Ser Phe Thr Pro Ser Ser Cys Ser  
 85 90 95  
 Phe His Ser His Leu Leu Ser Thr Asn Tyr Ala Lys Asn Tyr Val Gln  
 100 105 110  
 His Arg Thr Gly Trp  
 115

<210> 6197  
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6197

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&lt;210&gt; 6198

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6198

Met Gly Ala Ser His Gly Asn Trp Glu Val Pro Arg Gln Ser Gln Arg

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Phe His Arg Arg Ser Gln Arg Val Thr Lys Gly Ser Pro Gly Pro Gly			
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Ser Ser Gln His His Gly Leu Asn Thr His Trp Ala Pro Thr Leu Gly			
35	40	45	
Pro Gly Trp Gly Met Trp Gly Gln Glu Ala Ala Gln Ser Gly Arg Gln			
50	55	60	
Arg Glu Lys Cys Val Gln Arg Ala Pro Ile Ser Gly Cys Asn Val Val			
65	70	75	80
Leu Arg Leu Trp Leu Gly Ser Ala Ser Arg Val Ser Tyr Val Leu Cys			
85	90	95	
Ser Tyr Phe Leu Ser Pro Thr Leu Pro Cys Arg Asn Pro Ser Glu Tyr			
100	105	110	
Val Ala Thr Ile Leu Glu Leu Ser Ala Leu Ile Val			
115	120		

&lt;210&gt; 6199

&lt;211&gt; 1777

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6199

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 1777

<210> 6200  
 <211> 164  
 <212> PRT  
 <213> Homo sapiens

<400> 6200  
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 Pro Pro Lys Pro Asp Cys Gln Gln Lys Pro Ser Pro Ser Glu Gly Gln  
 35 40 45  
 Val Gly Val Pro Xaa Arg Ser Pro His Pro Gln Gly Gly Phe Thr His  
 50 55 60  
 Cys Pro Val Pro Gly Met Pro Gly Gly Arg Pro Leu Cys Cys Cys His  
 65 70 75 80  
 Cys Cys Gln His Cys Pro Ala Cys Glu Ala Arg Arg Ser Pro Cys Pro  
 85 90 95  
 Thr Arg Cys Cys Ser Ser Asp Pro Cys Cys Glu Glu Trp Asp Ser  
 100 105 110  
 Trp Ser Lys Lys Leu Val Phe Leu Phe Cys Ile Asn Glu Lys Asn Pro  
 115 120 125  
 Gly Glu Ala Ala Thr Leu Pro Ser Gln Arg Asp Ala Leu Pro Cys Phe  
 130 135 140  
 Gly Val Leu Ser Pro Phe Pro Pro Leu Val Gln Gly Gln Pro Ser Arg

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Ser Ser Trp Phe

<210> 6201  
<211> 604  
<212> DNA  
<213> Homo sapiens

<400> 6201  
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420  
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480  
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gccg  
604

<210> 6202  
<211> 124  
<212> PRT  
<213> Homo sapiens

<400> 6202  
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Pro Ser Asp Arg Met Arg Asp Arg Asn Ala Gln Gln Arg Ala Ile Gln  
20                      25                      30  
Gly Gln Trp Thr Leu Gly Arg Gly Ala Glu Trp Ala Ala Leu Arg Arg  
35                      40                      45  
Ala Gly Leu Arg Gly Cys Arg Glu Glu Phe Gly Gly Lys Gly Gln Pro  
50                      55                      60  
Gln Ser Leu Ser Cys Ala Ser Trp Glu Arg Gly Met Thr Gly Arg His  
65                      70                      75                      80  
Thr Asn Val Ser Gln Gly Arg Trp Ala Trp Gly His Arg Ala Pro Arg  
85                      90                      95  
Gly Gly Ser Gly Glu Gly Glu Pro Ala Glu Glu Arg Pro Gly Arg Ala  
100                      105                      110  
Gly Asp His Ala Gly Ala Gln Gly Glu Arg Gln Asp

115

120

&lt;210&gt; 6203

&lt;211&gt; 3462

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6203

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5386

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 3462

&lt;210&gt; 6204

&lt;211&gt; 486

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6204

Met Ser Val Thr Tyr Asp Asp Ser Val Gly Val Glu Val Ser Ser Asp  
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 Ser Phe Trp Glu Val Gly Asn Tyr Lys Arg Thr Val Lys Arg Ile Asp  
 20 25 30  
 Asp Gly His Arg Leu Cys Ser Asp Leu Met Asn Cys Leu His Glu Arg  
 35 40 45  
 Ala Arg Ile Glu Lys Ala Tyr Ala Gln Gln Leu Thr Glu Trp Ala Arg  
 50 55 60  
 Arg Trp Arg Gln Leu Val Glu Lys Gly Pro Gln Tyr Gly Thr Val Glu  
 65 70 75 80  
 Lys Ala Trp Met Ala Phe Met Ser Glu Ala Glu Arg Val Ser Glu Leu  
 85 90 95  
 His Leu Glu Val Lys Ala Ser Leu Met Asn Asp Asp Phe Glu Lys Ile  
 100 105 110  
 Lys Asn Trp Gln Lys Glu Ala Phe His Lys Gln Met Met Gly Gly Phe  
 115 120 125  
 Lys Glu Thr Lys Glu Ala Glu Asp Gly Phe Arg Lys Ala Gln Lys Pro  
 130 135 140  
 Trp Ala Lys Lys Leu Lys Glu Val Glu Ala Ala Lys Lys Ala His His  
 145 150 155 160  
 Ala Ala Cys Lys Glu Glu Lys Leu Ala Ile Ser Arg Glu Ala Asn Ser  
 165 170 175  
 Lys Ala Asp Pro Ser Leu Asn Pro Glu Gln Leu Lys Lys Leu Gln Asp  
 180 185 190  
 Lys Ile Glu Lys Cys Lys Gln Asp Val Leu Lys Thr Lys Glu Lys Tyr  
 195 200 205  
 Glu Lys Ser Leu Lys Glu Leu Asp Gln Gly Thr Pro Gln Tyr Met Glu  
 210 215 220  
 Asn Met Glu Gln Val Phe Glu Gln Cys Gln Gln Phe Glu Glu Lys Arg  
 225 230 235 240  
 Leu Arg Phe Phe Arg Glu Val Leu Leu Glu Val Gln Lys His Leu Asp

245 250 255  
 Leu Ser Asn Val Ala Gly Tyr Lys Ala Ile Tyr His Asp Leu Glu Gln  
 260 265 270  
 Ser Ile Arg Ala Ala Asp Ala Val Glu Asp Leu Arg Trp Phe Arg Ala  
 275 280 285  
 Asn His Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp  
 290 295 300  
 Ser Ala Asp Leu Asn Arg Thr Leu Ser Arg Arg Glu Lys Lys Lys Ala  
 305 310 315 320  
 Thr Asp Gly Val Thr Leu Thr Gly Ile Asn Gln Thr Gly Asp Gln Ser  
 325 330 335  
 Leu Pro Ser Lys Pro Ser Ser Thr Leu Asn Val Pro Ser Asn Pro Ala  
 340 345 350  
 Gln Ser Ala Gln Ser Gln Ser Ser Tyr Asn Pro Phe Glu Asp Glu Asp  
 355 360 365  
 Asp Thr Gly Ser Thr Val Ser Glu Lys Asp Asp Thr Lys Ala Lys Asn  
 370 375 380  
 Val Ser Ser Tyr Glu Lys Thr Gln Ser Tyr Pro Thr Asp Trp Ser Asp  
 385 390 395 400  
 Asp Glu Ser Asn Asn Pro Phe Ser Ser Thr Asp Ala Asn Gly Asp Ser  
 405 410 415  
 Asn Pro Phe Asp Asp Ala Thr Ser Gly Thr Glu Val Arg Val Arg  
 420 425 430  
 Ala Leu Tyr Asp Tyr Glu Gly Gln Glu His Asp Glu Leu Ser Phe Lys  
 435 440 445  
 Ala Gly Asp Glu Leu Thr Lys Met Glu Asp Glu Asp Glu Gln Gly Trp  
 450 455 460  
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 Tyr Val Glu Ala Ile Gln  
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<210> 6205  
 <211> 926  
 <212> DNA  
 <213> Homo sapiens

<400> 6205  
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 926

&lt;210&gt; 6206

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6206

Xaa Arg Leu Pro Xaa Arg Ile Gly Pro Ser Phe Asn Gly Gly Cys Gly  
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 Glu Met Glu Lys Trp Gly Glu Asp Phe Gly Glu Ser Arg Gly Arg Ala  
 20 25 30  
 Arg Glu Gly Lys Glu Phe Ala Asp Ser Gln Lys Leu Leu Phe Met Glu  
 35 40 45  
 Thr Ser Ala Lys Leu Asn His Gln Val Ser Glu Val Phe Asn Thr Val  
 50 55 60  
 Ala Gln Glu Leu Leu Gln Arg Ser Asp Glu Glu Gly Gln Ala Leu Xaa  
 65 70 75 80  
 Gly Glu Asp Thr Pro Cys Leu Gly His Gly Gln Leu  
 85 90

&lt;210&gt; 6207

&lt;211&gt; 1384

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6207

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 360

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<210> 6208

<211> 290

<212> PRT

<213> Homo sapiens

<400> 6208

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Trp	Arg	Leu	His	Ser	Pro	Thr	Gln	Val	Glu	Asp	Ala	Met	Leu	Asp	Thr

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 Arg Gln Glu Leu Ala Ala Ile Gln Asp Val Phe Leu Cys Cys Gly Lys  
 115 120 125  
 Lys Ser Pro Phe Ser Arg Leu Gly Ser Thr Glu Ala Asp Leu Cys Gln  
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 Gly Glu Glu Ala Ala Arg Glu Asp Cys Leu Gln Gly Ile Arg Ser Phe  
 145 150 155 160  
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 Ala Leu Thr Val Ser Ala Leu Leu Phe Ser Ser Phe Leu Trp Phe Ala  
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 195 200 205  
 Pro Arg Ala Cys Gly Arg Gln Pro Gln Glu Pro Ser Leu Leu Arg Cys  
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&lt;210&gt; 6209

&lt;211&gt; 2269

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6209

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<211> 165

<212> PRT

<213> Homo sapiens

<400> 6210

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Ser Pro Ser Leu Arg Gly Thr His Leu Leu Phe Leu Pro Gln Ala Asp  
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Val Val Asp Glu Ala Ile Asp Ser Leu Ala Arg Thr Lys Gly Val Met  
50 55 60  
Lys Pro Pro Cys Ser Glu Gly Ser Pro Trp Arg Cys Pro His Phe Thr  
65 70 75 80  
Cys Trp Val Leu Gln Ala Arg Lys Pro Gly Ser Gly Gly Thr Arg Glu  
85 90 95  
Arg Gln Ala Cys Val Trp Thr Ser Ala Gly Ala Ala Ala Leu Arg Leu  
100 105 110  
Ala Arg Glu Arg Gln Arg Trp Val Phe Arg Phe His Ala Tyr Val Trp  
115 120 125  
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<211> 2163

<212> DNA

<213> Homo sapiens

<400> 6211

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 <211> 209  
 <212> PRT  
 <213> Homo sapiens

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 Lys Gln Glu Leu Ala Glu Thr Leu Ala Asn Leu Glu Arg Gln Ile Tyr  
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 Ala Phe Glu Gly Ser Tyr Leu Glu Asp Thr Gln Met Tyr Gly Asn Ile  
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 Ile Arg Gly Trp Xaa Ser Val Ser Asp Gln Pro Xaa Lys Asn Ser Asn  
 65 70 75 80  
 Ser Lys Asn Asp Arg Arg Asn Arg Lys Phe Lys Glu Ala Glu Arg Leu  
 85 90 95  
 Phe Ser Lys Ser Ser Val Thr Ser Ala Ala Ala Val Ser Ala Leu Ala  
 100 105 110  
 Gly Val Gln Asp Gln Leu Ile Glu Lys Arg Glu Pro Gly Ser Gly Thr  
 115 120 125  
 Glu Ser Asp Thr Ser Pro Asp Phe His Asn Gln Glu Asn Glu Pro Ser  
 130 135 140  
 Gln Glu Asp Pro Glu Asp Leu Asp Gly Ser Val Gln Gly Val Lys Pro  
 145 150 155 160  
 Gln Lys Ala Ala Ser Ser Thr Ser Ser Gly Ser His His Ser Ser His  
 165 170 175  
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 <212> DNA  
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 Pro Pro Pro Pro Thr Pro Pro Thr Cys Ile Ala Gln Ile Gln  
 50 55 60  
 Val Met Met Glu Gln Ile Arg Pro Trp His Ser Arg Met Lys Arg Arg  
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 Pro Leu Pro Thr Asp  
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 Glu Ala Val Ala Ile Gly Pro Arg Gly Cys Ser Gly Ser Leu Arg Trp  
 35 40 45  
 Leu Gln Glu Ser Asp Ala Ala Pro Leu Pro Leu Ser Cys His Leu Ala  
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<210> 6217  
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<400> 6217

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Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr			
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&lt;210&gt; 6219

&lt;211&gt; 2495

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6219

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Pro Tyr Arg Cys His Asp Cys Gly Lys Cys Phe Arg Gln Leu Ala Tyr
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Leu Phe Arg His Gln Val Ile His Thr Gly Ser Gln Leu Tyr Gln Cys
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&lt;211&gt; 944

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6223

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<213> Homo sapiens

<400> 6224

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<212> DNA

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 cctttgcaaa ctccaaatac attatattta ttattcttg tgtctttttt cccccactag  
 1660  
 actgtgagct ccttgagggc caggacttat ctctgttgc agtgccaagg acatggcctg  
 1720  
 gaccatagaa gatactcagt tttttgtga ataaataggt aatatggatt tcaacaaaa  
 1780  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 1840  
 aaaaaaaaaa a  
 1851

<210> 6226

<211> 246

<212> PRT

<213> Homo sapiens

<400> 6226

Xaa Ile Gln Leu Leu Arg Arg Ser Asp Pro Ala Ala Phe Glu Ser Arg  
 1 5 10 15  
 Leu Glu Lys Arg Ser Glu Phe Arg Lys Gln Pro Val Gly His Ser Arg  
 20 25 30  
 Gln Gly Asp Phe Ile Lys Cys Val Glu Gln Lys Thr Asp Ala Leu Gly  
 35 40 45  
 Lys Gln Ser Val Asn Arg Gly Phe Thr Lys Asp Lys Thr Leu Ser Ser  
 50 55 60  
 Ile Phe Asn Ile Glu Met Val Lys Glu Lys Thr Ala Glu Glu Ile Lys  
 65 70 75 80  
 Gln Ile Trp Gln Gln Tyr Phe Ala Ala Lys Asp Thr Val Tyr Ala Val  
 85 90 95  
 Ile Pro Ala Glu Lys Phe Asp Leu Ile Trp Asn Arg Ala Gln Ser Cys  
 100 105 110  
 Pro Thr Phe Leu Cys Ala Leu Pro Arg Arg Glu Gly Tyr Glu Phe Phe  
 115 120 125  
 Val Gly Gln Trp Thr Gly Thr Glu Leu His Phe Thr Ala Leu Ile Asn  
 130 135 140  
 Ile Gln Thr Arg Gly Glu Ala Ala Ala Ser Gln Leu Ile Leu Tyr His  
 145 150 155 160  
 Tyr Pro Glu Leu Lys Glu Glu Lys Gly Ile Val Leu Met Thr Ala Glu  
 165 170 175  
 Met Asp Ser Thr Phe Leu Asn Val Ala Glu Ala Gln Cys Ile Ala Asn  
 180 185 190  
 Gln Val Gln Leu Phe Tyr Ala Thr Asp Arg Lys Glu Thr Tyr Gly Leu  
 195 200 205  
 Val Glu Thr Phe Asn Leu Arg Pro Asn Glu Phe Lys Tyr Met Ser Val  
 210 215 220  
 Ile Ala Glu Leu Glu Gln Ser Gly Leu Gly Ala Glu Leu Lys Cys Ala  
 225 230 235 240  
 Gln Asn Gln Asn Lys Thr

245

<210> 6227  
 <211> 830  
 <212> DNA  
 <213> Homo sapiens

<400> 6227  
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 120  
 ccagggagag tcgctgcaga atgggaggta cagaatcgta tcccttctgg aactatatta  
 180  
 aaggccttga tggaagggtg tgaaaatggg ccttgatga gatttatgag agcagaaata  
 240  
 acagcagagg gttttttacg agaatttggg agactttgct ctgaaatgtt aaagacctcc  
 300  
 gtgcctgtgg actcattttt ctctctgttg accagtgagc gagtggcaaa gcagttccca  
 360  
 gtgatgactg aggcataaac tcaaattcgg gcaaaaggtc ttcagactgc agtcttgagc  
 420  
 aataattttt atcttcccaa ccagaaaagc tttttgcccc tggaccggaa acagtttgat  
 480  
 gtgattgttg agtcctgcat ggaagggtc tgtaagccag accctaggat ctacaagctg  
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 tgcttgagc agctcgccct gcagccctct gagtccatct ttcttgatga ccttggaaaca  
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 aatctaaaag aagctgccag acttggtatt cacaccatta aggttaatga cccagagact  
 660  
 gcagtaaaag aattagaagc tctcttgggt ttacattga gtaggtgt tccaaacact  
 720  
 cggcctgtga aaaagacgat ggaaattccg aaagattcct tgcagaagta cctcaaagac  
 780  
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 830

<210> 6228  
 <211> 271  
 <212> PRT  
 <213> Homo sapiens

<400> 6228  
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 20 25 30  
 Ile Pro Ser Pro Gly Arg Val Ala Ala Glu Trp Glu Val Gln Asn Arg  
 35 40 45  
 Ile Pro Ser Gly Thr Ile Leu Lys Ala Leu Met Glu Gly Gly Glu Asn  
 50 55 60  
 Gly Pro Trp Met Arg Phe Met Arg Ala Glu Ile Thr Ala Glu Gly Phe  
 65 70 75 80  
 Leu Arg Glu Phe Gly Arg Leu Cys Ser Glu Met Leu Lys Thr Ser Val

5410

	85		90		95										
Pro	Val	Asp	Ser	Phe	Phe	Ser	Leu	Leu	Thr	Ser	Glu	Arg	Val	Ala	Lys
	100							105					110		
Gln	Phe	Pro	Val	Met	Thr	Glu	Ala	Ile	Thr	Gln	Ile	Arg	Ala	Lys	Gly
	115						120						125		
Leu	Gln	Thr	Ala	Val	Leu	Ser	Asn	Asn	Phe	Tyr	Leu	Pro	Asn	Gln	Lys
	130					135					140				
Ser	Phe	Leu	Pro	Leu	Asp	Arg	Lys	Gln	Phe	Asp	Val	Ile	Val	Glu	Ser
	145				150					155				160	
Cys	Met	Glu	Gly	Ile	Cys	Lys	Pro	Asp	Pro	Arg	Ile	Tyr	Lys	Leu	Cys
				165					170					175	
Leu	Glu	Gln	Leu	Gly	Leu	Gln	Pro	Ser	Glu	Ser	Ile	Phe	Leu	Asp	Asp
		180					185					190			
Leu	Gly	Thr	Asn	Leu	Lys	Glu	Ala	Ala	Arg	Leu	Gly	Ile	His	Thr	Ile
	195					200						205			
Lys	Val	Asn	Asp	Pro	Glu	Thr	Ala	Val	Lys	Glu	Leu	Glu	Ala	Leu	Leu
	210					215					220				
Gly	Phe	Thr	Leu	Arg	Val	Gly	Val	Pro	Asn	Thr	Arg	Pro	Val	Lys	Lys
	225				230				235					240	
Thr	Met	Glu	Ile	Pro	Lys	Asp	Ser	Leu	Gln	Lys	Tyr	Leu	Lys	Asp	Leu
			245					250						255	
Leu	Gly	Ile	Gln	Thr	Thr	Gly	Pro	Leu	Glu	Leu	Leu	Gln	Phe	Asp	
		260					265							270	

<210> 6229  
 <211> 3105  
 <212> DNA  
 <213> Homo sapiens

<400> 6229  
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 120  
 tgtgacgtcc ccaccaacgg ctgcggaccc gaccgctgga actccgcgtt caccgcgaaa  
 180  
 gacgagatca tcaccagcct cgtgtctgcc ttagactcca tgtgtctcagc gctgtccaaa  
 240  
 ctgaacgccg aggtggcctg tgcgcctg caccgatgaga gcgcctttgt ggtgggcaca  
 300  
 gagaagggga gaatgttccct gaatgcccg aaggagctac agtcagactt cctcaggttc  
 360  
 tgccgagggc ccccgtagaa ggatccggag gcagagcacc ccaagaaggt gcagcggggc  
 420  
 gagggtaggag gccgtagcct cctcgggtcc tccctggaac atggctcaga tgtgtacctt  
 480  
 ctgcggaaga tggtagagga ggtgtttgat gttctttata gcgaggccct gggaagggcc  
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 720

gggcgggact cgaaggccct ggtggagctg aacggtgtct ccctgattcc caaggggtca  
780  
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840  
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900  
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960  
cggcccatgc cagagcccaa ggccaccggt gcccaagact tctccgactg ttgtggacag  
1020  
aagcccaactg ggcctgggtg gcctctcatc cagaacgtcc atgcctccaa gcgcattctc  
1080  
ttctccatcg tccatgacaa gtcagagaag tgggacgcct tcataaagga aaccgaggac  
1140  
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1200  
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1320  
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1680  
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1740  
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1920  
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1980  
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2100  
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2160  
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2220  
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2280  
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2340

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 2460  
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 ccgggtgctgg tcccttataa actaatccgg gacagcccag acgccgtgga ggtcacgggt  
 2580  
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 2640  
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 2700  
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 2760  
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 2820  
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 2880  
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 2940  
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 3000  
 atattcggat atgtatcgat gccttttagt ttttccaatg atttttacac tatattcctg  
 3060  
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 3105

&lt;210&gt; 6230

&lt;211&gt; 944

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6230

Met Ala Leu Leu Gly Lys Arg Cys Asp Val Pro Thr Asn Gly Cys Gly  
 1 5 10 15  
 Pro Asp Arg Trp Asn Ser Ala Phe Thr Arg Lys Asp Glu Ile Ile Thr  
 20 25 30  
 Ser Leu Val Ser Ala Leu Asp Ser Met Cys Ser Ala Leu Ser Lys Leu  
 35 40 45  
 Asn Ala Glu Val Ala Cys Val Ala Val His Asp Glu Ser Ala Phe Val  
 50 55 60  
 Val Gly Thr Glu Lys Gly Arg Met Phe Leu Asn Ala Arg Lys Glu Leu  
 65 70 75 80  
 Gln Ser Asp Phe Leu Arg Phe Cys Arg Gly Pro Pro Trp Lys Asp Pro  
 85 90 95  
 Glu Ala Glu His Pro Lys Lys Val Gln Arg Gly Glu Gly Gly Gly Arg  
 100 105 110  
 Ser Leu Pro Arg Ser Ser Leu Glu His Gly Ser Asp Val Tyr Leu Leu  
 115 120 125  
 Arg Lys Met Val Glu Glu Val Phe Asp Val Leu Tyr Ser Glu Ala Leu  
 130 135 140  
 Gly Arg Ala Ser Val Val Pro Leu Pro Tyr Glu Arg Leu Leu Arg Glu  
 145 150 155 160  
 Pro Gly Leu Leu Ala Val Gln Gly Leu Pro Glu Gly Leu Ala Phe Arg



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165      170      175
Arg Pro Ala Glu Tyr Asp Pro Lys Ala Leu Met Ala Ile Leu Glu His
180      185      190
Ser His Arg Ile Arg Phe Lys Leu Lys Arg Pro Leu Glu Asp Gly Gly
195      200      205
Arg Asp Ser Lys Ala Leu Val Glu Leu Asn Gly Val Ser Leu Ile Pro
210      215      220
Lys Gly Ser Arg Asp Cys Gly Leu His Gly Gln Ala Pro Lys Val Pro
225      230      235      240
Pro Gln Asp Leu Pro Pro Thr Ala Thr Ser Ser Ser Met Ala Ser Phe
245      250      255
Leu Tyr Ser Thr Ala Leu Pro Asn His Ala Ile Arg Glu Leu Lys Gln
260      265      270
Glu Ala Pro Ser Cys Pro Leu Ala Pro Ser Asp Leu Gly Leu Ser Arg
275      280      285
Pro Met Pro Glu Pro Lys Ala Thr Gly Ala Gln Asp Phe Ser Asp Cys
290      295      300
Cys Gly Gln Lys Pro Thr Gly Pro Gly Gly Pro Leu Ile Gln Asn Val
305      310      315      320
His Ala Ser Lys Arg Ile Leu Phe Ser Ile Val His Asp Lys Ser Glu
325      330      335
Lys Trp Asp Ala Phe Ile Lys Glu Thr Glu Asp Ile Asn Thr Leu Arg
340      345      350
Glu Cys Val Gln Ile Leu Phe Asn Ser Arg Tyr Ala Glu Ala Leu Gly
355      360      365
Leu Gly Asn Met Val Pro Val Pro Tyr Arg Lys Ile Ala Cys Asp Pro
370      375      380
Glu Ala Val Glu Ile Val Gly Ile Pro Asp Lys Ile Pro Phe Lys Arg
385      390      395      400
Pro Cys Thr Tyr Gly Val Pro Lys Leu Lys Arg Ile Leu Glu Glu Arg
405      410      415
His Ser Ile His Phe Ile Ile Lys Arg Met Phe Asp Glu Arg Ile Phe
420      425      430
Thr Gly Asn Lys Phe Thr Lys Asp Thr Thr Lys Leu Glu Pro Ala Ser
435      440      445
Pro Pro Glu Asp Thr Ser Ala Glu Val Ser Arg Ala Thr Val Leu Asp
450      455      460
Leu Ala Gly Asn Ala Arg Ser Asp Lys Gly Ser Met Ser Glu Asp Cys
465      470      475      480
Gly Pro Gly Thr Ser Gly Glu Leu Gly Gly Leu Arg Pro Ile Lys Ile
485      490      495
Glu Pro Glu Asp Leu Asp Ile Ile Gln Val Thr Val Pro Asp Pro Ser
500      505      510
Pro Thr Ser Glu Glu Met Thr Asp Ser Met Pro Gly His Leu Pro Ser
515      520      525
Glu Asp Ser Gly Tyr Gly Met Glu Met Leu Thr Asp Lys Gly Leu Ser
530      535      540
Glu Asp Ala Arg Pro Glu Glu Arg Pro Val Glu Asp Ser His Gly Asp
545      550      555      560
Val Ile Arg Pro Leu Arg Lys Gln Val Glu Leu Leu Phe Asn Thr Arg
565      570      575
Tyr Ala Lys Ala Ile Gly Ile Ser Glu Pro Val Lys Val Pro Tyr Ser
580      585      590
Lys Phe Leu Met His Pro Glu Glu Leu Phe Val Val Gly Leu Pro Glu

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      595              600              605
Gly Ile Ser Leu Arg Arg Pro Asn Cys Phe Gly Ile Ala Lys Leu Arg
610              615              620
Lys Ile Leu Glu Ala Ser Asn Ser Ile Gln Phe Val Ile Lys Arg Pro
625              630              635              640
Glu Leu Leu Thr Glu Gly Val Lys Glu Pro Ile Val Asp Ser Gln Glu
645              650              655
Arg Asp Ser Gly Asp Pro Leu Val Asp Glu Ser Leu Lys Arg Gln Gly
660              665              670
Phe Gln Glu Asn Tyr Asp Ala Arg Leu Ser Arg Ile Asp Ile Ala Asn
675              680              685
Thr Leu Arg Glu Gln Val Gln Asp Leu Phe Asn Lys Lys Tyr Gly Glu
690              695              700
Ala Leu Gly Ile Lys Tyr Pro Val Gln Val Pro Tyr Lys Arg Ile Lys
705              710              715              720
Ser Asn Pro Gly Ser Val Ile Ile Glu Gly Leu Pro Pro Gly Ile Pro
725              730              735
Phe Arg Lys Pro Cys Thr Phe Gly Ser Gln Asn Leu Glu Arg Ile Leu
740              745              750
Ala Val Ala Asp Lys Ile Lys Phe Thr Val Thr Arg Pro Phe Gln Gly
755              760              765
Leu Ile Pro Lys Pro Asp Glu Asp Asp Ala Asn Arg Leu Gly Glu Lys
770              775              780
Val Ile Leu Arg Glu Gln Val Lys Glu Leu Phe Asn Glu Lys Tyr Gly
785              790              795              800
Glu Ala Leu Gly Leu Asn Arg Pro Val Leu Val Pro Tyr Lys Leu Ile
805              810              815
Arg Asp Ser Pro Asp Ala Val Glu Val Thr Gly Leu Pro Asp Asp Ile
820              825              830
Pro Phe Arg Asn Pro Asn Thr Tyr Asp Ile His Arg Leu Glu Lys Ile
835              840              845
Leu Lys Ala Arg Glu His Val Arg Met Val Ile Ile Asn Gln Leu Gln
850              855              860
Pro Phe Ala Glu Ile Cys Asn Asp Ala Lys Val Pro Ala Lys Asp Ser
865              870              875              880
Ser Ile Pro Lys Arg Lys Arg Lys Arg Val Ser Glu Gly Asn Ser Val
885              890              895
Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Asn Pro Asp Ser
900              905              910
Val Ala Ser Ala Asn Gln Ile Ser Leu Val Gln Trp Pro Met Tyr Met
915              920              925
Val Asp Tyr Ala Gly Leu Asn Val Gln Leu Pro Gly Pro Leu Asn Tyr
930              935              940

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&lt;210&gt; 6231

&lt;211&gt; 471

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6231

tgatcattgg gatcacttgt tggaatggcc gggttcctgt gcaggcacct agcaaatgtc

60

taccaatgac aggcctact cacagccact gcactccagc ttgggcgaca gaacgaggcc

120

ttgccttttt aaaaaaaaaa aaaagggtca aaaaaagagt atgctgggcc aaaaatctgg  
 180  
 cccctcaggc ctcttgacct ggaggagaaa aaggggcccg aagccccccg ttgcccccat  
 240  
 ctccatatgg aatggcacaa cccctcgagg ggaacccccc cctaaccata gttctaaaaa  
 300  
 ggggacaaaa aaatgggcgc tggatttttc aacgccgga acccaattcc caccctctgg  
 360  
 ccggccgttc ttagggatcc caacttgga cccaacctgg gcgtattctg ggccttactt  
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 471

<210> 6232

<211> 138

<212> PRT

<213> Homo sapiens

<400> 6232

Met Ser Thr Asn Asp Arg Pro Tyr Ser Gln Pro Leu His Ser Ser Leu  
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 Gly Asp Arg Thr Arg Pro Cys Leu Phe Lys Lys Lys Lys Lys Ala Gln  
 20 25 30  
 Lys Lys Ser Met Leu Gly Gln Lys Ser Gly Pro Ser Gly Leu Leu Thr  
 35 40 45  
 Trp Arg Arg Lys Arg Gly Pro Lys Pro Pro Val Ala Pro Ile Ser Ile  
 50 55 60  
 Trp Asn Gly Thr Thr Pro Arg Gly Glu Pro Pro Pro Asn His Ser Ser  
 65 70 75 80  
 Lys Lys Gly Thr Lys Lys Trp Ala Leu Asp Phe Ser Thr Pro Glu Thr  
 85 90 95  
 Gln Phe Pro Pro Pro Gly Arg Pro Phe Leu Gly Ile Pro Thr Trp Asp  
 100 105 110  
 Pro Thr Trp Ala Tyr Ser Gly Pro Tyr Leu Phe Leu Val Gly Ile Gly  
 115 120 125  
 Ile Pro Phe Pro Phe Pro Pro Pro Ser Asn  
 130 135

<210> 6233

<211> 894

<212> DNA

<213> Homo sapiens

<400> 6233

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 120  
 aggggaaggag acgattggag tcaactcaat gtgtcaaaa aaagaagagt cggggacctc  
 180  
 ctagccagtt acattccaga ggaatgaggc ctgatgcttc gggatggacg ctttgcttgt  
 240  
 gccatctgcc cccatcgacc ggtactggac accctggcca tgctgactgc ccaccgtgca  
 300

ggcaagaaac atctgtccag cttgcagctt ttctatggca agaagcagcc gggaaaggaa  
 360  
 agaaagcaga atccaaaaca tcagaatgaa ttgagaaggg aagaaaccaa agctgaggct  
 420  
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 480  
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 660  
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 720  
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 780  
 cctgatctcc ccttggaactg ataccctttt cccattcatt cacaataaaa ttacaatggg  
 840  
 tgctgagaac ttaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa aaaa  
 894

&lt;210&gt; 6234

&lt;211&gt; 230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6234

Met Ser Phe Lys Arg Glu Gly Asp Asp Trp Ser Gln Leu Asn Val Leu  
 1 5 10 15  
 Lys Lys Arg Arg Val Gly Asp Leu Leu Ala Ser Tyr Ile Pro Glu Asp  
 20 25 30  
 Glu Ala Leu Met Leu Arg Asp Gly Arg Phe Ala Cys Ala Ile Cys Pro  
 35 40 45  
 His Arg Pro Val Leu Asp Thr Leu Ala Met Leu Thr Ala His Arg Ala  
 50 55 60  
 Gly Lys Lys His Leu Ser Ser Leu Gln Leu Phe Tyr Gly Lys Lys Gln  
 65 70 75 80  
 Pro Gly Lys Glu Arg Lys Gln Asn Pro Lys His Gln Asn Glu Leu Arg  
 85 90 95  
 Arg Glu Glu Thr Lys Ala Glu Ala Pro Leu Leu Thr Gln Thr Arg Leu  
 100 105 110  
 Ile Thr Gln Ser Ala Leu His Arg Ala Pro His Tyr Asn Ser Cys Cys  
 115 120 125  
 Arg Arg Lys Tyr Arg Pro Glu Ala Pro Gly Pro Ser Val Ser Leu Ser  
 130 135 140  
 Pro Met Pro Pro Ser Glu Val Lys Leu Gln Ser Gly Lys Ile Ser Arg  
 145 150 155 160  
 Glu Pro Glu Pro Ala Ala Gly Pro Gln Ala Glu Glu Ser Ala Thr Val  
 165 170 175  
 Ser Ala Pro Ala Pro Met Ser Pro Thr Arg Arg Arg Ala Leu Asp His  
 180 185 190  
 Tyr Leu Thr Leu Arg Ser Ser Gly Trp Ile Pro Asp Gly Arg Gly Arg  
 195 200 205  
 Trp Val Lys Asp Glu Asn Val Glu Phe Asp Ser Asp Glu Glu Glu Pro

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210          215          220
Pro Asp Leu Pro Leu Asp
225          230

<210> 6235
<211> 3427
<212> DNA
<213> Homo sapiens

<400> 6235
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120
tgggcccctgc accgcggccg caagaaggcc acaggcagcc ccgtgtccat ctctgtctat
180
gatgtgaagc ctggcgcgga agagcagacc cagggtggcca aagctgcctt caagcgcttc
240
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300
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420
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600
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<211> 820

<212> PRT

<213> Homo sapiens

<400> 6236

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 35 40 45  
 Lys Ala Thr Gly Ser Pro Val Ser Ile Phe Val Tyr Asp Val Lys Pro  
 50 55 60  
 Gly Ala Glu Glu Gln Thr Gln Val Ala Lys Ala Ala Phe Lys Arg Phe  
 65 70 75 80  
 Lys Thr Leu Arg His Pro Asn Ile Leu Ala Tyr Ile Asp Gly Leu Glu  
 85 90 95  
 Thr Glu Lys Cys Leu His Val Val Thr Glu Ala Val Thr Pro Leu Gly  
 100 105 110  
 Ile Tyr Leu Lys Ala Arg Val Glu Ala Gly Gly Leu Lys Glu Leu Glu  
 115 120 125  
 Ile Ser Trp Gly Leu His Gln Ile Val Lys Ala Leu Ser Phe Leu Val  
 130 135 140  
 Asn Asp Cys Ser Leu Ile His Asn Asn Val Cys Met Ala Ala Val Phe  
 145 150 155 160  
 Val Asp Arg Ala Gly Glu Trp Lys Leu Gly Gly Leu Asp Tyr Met Tyr  
 165 170 175  
 Ser Ala Gln Gly Asn Gly Gly Gly Pro Pro Arg Lys Gly Ile Pro Glu  
 180 185 190  
 Leu Glu Gln Tyr Asp Pro Pro Glu Leu Ala Asp Ser Ser Gly Arg Val  
 195 200 205  
 Val Arg Glu Lys Trp Ser Ala Asp Met Trp Arg Leu Gly Cys Leu Ile  
 210 215 220  
 Trp Glu Val Phe Asn Gly Pro Leu Pro Arg Ala Ala Ala Leu Arg Asn

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Pro Gly Lys Ile Pro Lys Thr Leu Val Pro His Tyr Cys Glu Leu Val
          245          250          255
Gly Ala Asn Pro Lys Val Arg Pro Asn Pro Ala Arg Phe Leu Gln Asn
          260          265          270
Cys Arg Ala Pro Gly Gly Phe Met Ser Asn Arg Phe Val Glu Thr Asn
          275          280          285
Leu Phe Leu Glu Glu Ile Gln Ile Lys Glu Pro Ala Glu Lys Gln Lys
          290          295          300
Phe Phe Gln Glu Leu Ser Lys Ser Leu Asp Ala Phe Pro Glu Asp Phe
          305          310          315
Cys Arg His Lys Val Leu Pro Gln Leu Leu Thr Ala Phe Glu Phe Gly
          325          330          335
Asn Ala Gly Ala Val Val Leu Thr Pro Leu Phe Lys Val Gly Lys Phe
          340          345          350
Leu Ser Ala Glu Glu Tyr Gln Gln Lys Ile Ile Pro Val Val Val Lys
          355          360          365
Met Phe Ser Ser Thr Asp Arg Ala Met Arg Ile Arg Leu Leu Gln Gln
          370          375          380
Met Glu Gln Phe Ile Gln Tyr Leu Asp Glu Pro Thr Val Asn Thr Gln
          385          390          395
Ile Phe Pro His Val Val His Gly Phe Leu Asp Thr Asn Pro Ala Ile
          405          410          415
Arg Glu Gln Thr Val Lys Ser Met Leu Leu Leu Ala Pro Lys Leu Asn
          420          425          430
Glu Ala Asn Leu Asn Val Glu Leu Met Lys His Phe Ala Arg Leu Gln
          435          440          445
Ala Lys Asp Glu Gln Gly Pro Ile Arg Cys Asn Thr Thr Val Cys Leu
          450          455          460
Gly Lys Ile Gly Ser Tyr Leu Ser Ala Ser Thr Arg His Arg Val Leu
          465          470          475
Thr Ser Ala Phe Ser Arg Ala Thr Arg Asp Pro Phe Ala Pro Ser Arg
          485          490          495
Val Ala Gly Val Leu Gly Phe Ala Ala Thr His Asn Leu Tyr Ser Met
          500          505          510
Asn Asp Cys Ala Gln Lys Ile Leu Pro Val Leu Cys Gly Leu Thr Val
          515          520          525
Asp Pro Glu Lys Ser Val Arg Asp Gln Ala Phe Lys Ala Ile Arg Ser
          530          535          540
Phe Leu Ser Lys Leu Glu Ser Val Ser Glu Asp Pro Thr Gln Leu Glu
          545          550          555
Glu Val Glu Lys Asp Val His Ala Ala Ser Ser Pro Gly Met Gly Gly
          565          570          575
Ala Ala Ala Ser Trp Ala Gly Trp Ala Val Thr Gly Val Ser Ser Leu
          580          585          590
Thr Ser Lys Leu Ile Arg Ser His Pro Thr Thr Ala Pro Thr Glu Thr
          595          600          605
Asn Ile Pro Gln Arg Pro Thr Pro Glu Gly Val Pro Ala Pro Ala Pro
          610          615          620
Thr Pro Val Pro Ala Thr Pro Thr Thr Ser Gly His Trp Glu Thr Gln
          625          630          635
Glu Glu Asp Lys Asp Thr Ala Glu Asp Ser Ser Thr Ala Asp Arg Trp
          645          650          655
Asp Asp Glu Asp Trp Gly Ser Leu Glu Gln Glu Ala Glu Ser Val Leu

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660										665					670				
Ala	Gln	Gln	Asp	Asp	Trp	Ser	Thr	Gly	Gly	Gln	Val	Ser	Arg	Ala	Ser				
675										680					685				
Gln	Val	Ser	Asn	Ser	Asp	His	Lys	Ser	Ser	Lys	Ser	Pro	Glu	Ser	Asp				
690										695					700				
Trp	Ser	Ser	Trp	Glu	Ala	Glu	Gly	Ser	Trp	Glu	Gln	Gly	Trp	Gln	Glu				
705										710					715				
Pro	Ser	Ser	Gln	Glu	Pro	Pro	Pro	Asp	Gly	Thr	Arg	Leu	Ala	Ser	Glu				
725										730					735				
Tyr	Asn	Trp	Gly	Gly	Pro	Glu	Ser	Ser	Asp	Lys	Gly	Asp	Pro	Phe	Ala				
740										745					750				
Thr	Leu	Ser	Ala	Arg	Pro	Ser	Thr	Gln	Pro	Arg	Pro	Asp	Ser	Trp	Gly				
755										760					765				
Glu	Asp	Asn	Trp	Glu	Gly	Leu	Glu	Thr	Asp	Ser	Arg	Gln	Val	Lys	Ala				
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Glu	Leu	Ala	Arg	Lys	Lys	Arg	Glu	Glu	Arg	Arg	Arg	Glu	Met	Glu	Ala				
785										790					795				
Lys	Arg	Ala	Glu	Arg	Lys	Val	Ala	Lys	Gly	Pro	Met	Lys	Leu	Gly	Ala				
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Arg	Lys	Leu	Asp																
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<210> 6237
<211> 494
<212> DNA
<213> Homo sapiens
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240
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300
gcattggaagg tcatgccccc catcatttta agctgggtctc agtgcatgtg ttcattgcgc
360
acgggagacag gtaccacctg tatgtcattc ccaaaacaaa gcgaccagaa attgactgca
420
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494

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<212> PRT
<213> Homo sapiens
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911

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<212> PRT  
<213> Homo sapiens

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Leu Glu Leu Leu Ser Pro Phe Gln Leu Tyr Phe Asn Pro His Leu Val  
35 40 45  
Phe Arg Lys Phe Gln Val Trp Arg Leu Val Thr Asn Phe Leu Phe Phe  
50 55 60  
Gly Pro Leu Gly Phe Ser Phe Phe Asn Met Leu Phe Val Phe Arg  
65 70 75 80  
Tyr Cys Arg Met Leu Glu Glu Gly Ser Phe Arg Gly Arg Thr Ala Asp  
85 90 95  
Phe Val Phe Met Phe Leu Phe Gly Gly Val Leu Met Thr Leu Leu Gly  
100 105 110  
Leu Leu Gly Ser Leu Phe Phe Leu Gly Gln Ala Leu Met Ala Met Leu  
115 120 125  
Val Tyr Val Trp Ser Arg Arg Ser Pro Arg Val Arg Val Asn Phe Phe  
130 135 140  
Gly Leu Leu Thr Phe Gln Ala Pro Phe Leu Pro Trp Ala Leu Met Gly  
145 150 155 160  
Phe Ser Leu Leu Leu Gly Asn Ser Ile Leu Val Asp Leu Leu Gly Ile  
165 170 175  
Ala Val Gly His Ile Tyr Tyr Phe Leu Glu Asp Val Phe Pro Asn Gln  
180 185 190  
Pro Gly Gly Lys Arg Leu Leu Gln Thr Pro Gly Phe Leu Lys Leu Leu  
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Gln Pro Gly Pro His Leu Pro Pro Pro Gln Gln  
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<212> DNA  
<213> Homo sapiens

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240

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 <211> 245  
 <212> PRT  
 <213> Homo sapiens

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      50      55      60
Pro Pro Pro Thr Pro Ala Thr Pro Thr Ser Ser Ala Ser Asn Leu Asp
65      70      75      80
Leu Gly Glu Gln Arg Asp Ala Trp Glu Thr Phe Gln Lys Arg Gln Lys
      85      90      95
Leu Thr Ser Glu Gly Ala Ala Lys Leu Leu Asp Thr Phe Glu Tyr
      100      105      110
Gln Gly Leu Val Lys His Thr Gly Gly Cys His Cys Gly Ala Val Arg
      115      120      125
Phe Glu Val Trp Ala Ser Ala Asp Leu His Ile Phe Asp Cys Asn Cys
      130      135      140
Ser Ile Cys Lys Lys Lys Gln Asn Arg His Phe Ile Val Pro Ala Ser
145      150      155      160
Arg Phe Lys Leu Leu Lys Gly Ala Glu His Ile Thr Thr Tyr Thr Phe
      165      170      175
Asn Thr His Lys Ala Gln His Thr Phe Cys Lys Arg Cys Gly Val Gln
      180      185      190
Ser Phe Tyr Thr Pro Arg Ser Asn Pro Gly Gly Phe Gly Ile Ala Pro
195      200      205
His Cys Leu Asp Glu Gly Thr Val Arg Ser Met Val Thr Glu Glu Phe
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Asn Gly Ser Asp Trp Glu Lys Ala Met Lys Glu His Lys Thr Ile Lys
225      230      235      240
Asn Met Ser Lys Glu
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&lt;210&gt; 6243

&lt;211&gt; 326

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6243

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326

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&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

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 Gly Phe Leu Leu Trp Lys Ala Ile Pro Ser Phe Ala Ser Ser Thr Leu  
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 Arg Met Ser Ser Ser Leu His Ser Leu Trp Phe Val Pro Leu Val Ser  
 50 55 60  
 Glu Glu Glu Val Leu Ile Ile Leu Ser Gly Ser Glu Cys Ser Thr Cys  
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 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

<400> 6246  
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Tyr Gly Arg Arg Ser Arg Thr Asp Asp Leu Lys Trp Ser Arg Leu Pro
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Leu Ala Phe Ala Tyr Arg Glu Pro Tyr Leu Phe Val Thr His Phe Asn
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&lt;210&gt; 6247

&lt;211&gt; 497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6247

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&lt;210&gt; 6250

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6250

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	195		200		205
Gly Arg Phe Ala Thr Ala Glu Glu Ile Ala Met Leu Cys Val Tyr Leu					
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Gly Gly Trp Ser Leu					240
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&lt;210&gt; 6251

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6251

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&lt;210&gt; 6252

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6252

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 Ala Lys Ser Ser Lys Gly Lys Gly Arg Gly His Ser Gly Glu Asn Ser  
 20 25 30  
 Ile Ser Gly Lys Thr Gly Ile His Phe Lys Ile Ser Ala Gln Lys Gly  
 35 40 45  
 Ser Arg Ala Val Leu Lys Pro Gly Arg Gln Gly Pro Pro Ile Pro Thr  
 50 55 60  
 Ile Leu Leu Ser Pro Ser Pro Trp Arg Thr Leu Ala Arg Val Tyr  
 65 70 75 80  
 Arg Glu Ser His His Ile Tyr Tyr Glu Ala Arg Ala Leu Gly Tyr Val  
 85 90 95  
 Pro Thr Ile Pro  
 100

&lt;210&gt; 6253

&lt;211&gt; 1953

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6253

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 1920  
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 1953

<210> 6254  
 <211> 216  
 <212> PRT  
 <213> Homo sapiens

<400> 6254  
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 35 40 45  
 Glu Gly Glu Asp Leu Asn Glu Trp Ile Ala Val Asn Thr Val Asp Phe  
 50 55 60  
 Phe Asn Gln Ile Asn Met Leu Tyr Gly Thr Ile Thr Glu Phe Cys Thr  
 65 70 75 80  
 Glu Ala Ser Cys Pro Val Met Ser Ala Gly Pro Arg Tyr Glu Tyr His  
 85 90 95  
 Trp Ala Asp Gly Thr Asn Ile Lys Lys Pro Ile Lys Cys Ser Ala Pro  
 100 105 110  
 Lys Tyr Ile Asp Tyr Leu Met Thr Trp Val Gln Asp Gln Leu Asp Asp  
 115 120 125  
 Glu Thr Leu Phe Pro Ser Lys Ile Gly Val Pro Phe Pro Lys Asn Phe  
 130 135 140  
 Met Ser Val Ala Lys Thr Ile Leu Lys Arg Leu Phe Arg Val Tyr Ala  
 145 150 155 160  
 His Ile Tyr His Gln His Phe Asp Ser Val Met Gln Leu Gln Glu Glu  
 165 170 175  
 Ala His Leu Asn Thr Ser Phe Lys His Phe Ile Phe Phe Val Gln Glu  
 180 185 190  
 Phe Asn Leu Ile Asp Arg Arg Glu Leu Ala Pro Leu Gln Glu Leu Ile  
 195 200 205  
 Glu Lys Leu Gly Ser Lys Asp Arg  
 210 215

<210> 6255  
 <211> 622  
 <212> DNA  
 <213> Homo sapiens

<400> 6255  
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622

&lt;210&gt; 6256

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6256

Met Pro Leu His Ser Ser Leu Gly Asn Arg Val Arg Leu His Leu Lys  
1 5 10 15  
Lys Lys Lys Ala Thr Val Ala Ala Phe Thr Ala Ser Glu Gly His Ala  
20 25 30  
His Pro Arg Val Val Glu Leu Pro Lys Thr Asp Glu Gly Leu Gly Phe  
35 40 45  
Asn Ile Met Gly Gly Lys Glu Gln Asn Ser Pro Ile Tyr Ile Ser Arg  
50 55 60  
Val Ile Pro Gly Gly Val Ala Asp Arg His Gly Gly Leu Lys Arg Gly  
65 70 75 80  
Asp Gln Leu Leu Ser Val Asn Gly Val Ser Val Glu Gly Glu Gln His  
85 90 95  
Glu Lys Ala Val Glu Leu Leu Lys Ala Ala Gln Gly Ser Val Lys Leu  
100 105 110  
Val Val Arg Tyr Thr Pro Arg Val Leu Glu Glu Met Glu Ala Arg Phe  
115 120 125  
Glu Lys Met Arg Ser Ala Arg Arg Gln Gln His Gln Ser Tyr Ser  
130 135 140  
Ser Leu Glu Ser Arg Gly  
145 150

&lt;210&gt; 6257

&lt;211&gt; 2216

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6257

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<210> 6258

<211> 340

<212> PRT

<213> Homo sapiens

<400> 6258

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 Ser Pro Cys Gly Lys Phe Leu Ala Ala Gly Asn Asn Tyr Gly Gln Ile  
 35 40 45  
 Ala Ile Phe Ser Leu Ser Ser Ala Leu Ser Ser Glu Ala Lys Glu Glu  
 50 55 60  
 Ser Lys Lys Pro Val Val Thr Phe Gln Ala His Asp Gly Pro Val Tyr  
 65 70 75 80  
 Ser Met Val Ser Thr Asp Arg His Leu Leu Ser Ala Gly Asp Gly Glu  
 85 90 95  
 Val Lys Ala Trp Leu Trp Ala Glu Met Leu Lys Lys Gly Cys Lys Glu  
 100 105 110  
 Leu Trp Arg Arg Gln Pro Pro Tyr Arg Thr Ser Leu Glu Val Pro Glu  
 115 120 125  
 Ile Asn Ala Leu Leu Leu Val Pro Lys Glu Asn Ser Leu Ile Leu Ala  
 130 135 140  
 Gly Gly Asp Cys Gln Leu His Thr Met Asp Leu Glu Thr Gly Thr Phe  
 145 150 155 160  
 Thr Arg Val Leu Arg Gly His Thr Asp Tyr Ile His Cys Leu Ala Leu  
 165 170 175  
 Arg Glu Arg Ser Pro Glu Val Leu Ser Gly Gly Glu Asp Gly Ala Val  
 180 185 190  
 Arg Leu Trp Asp Leu Arg Thr Ala Lys Glu Val Gln Thr Ile Glu Ser  
 195 200 205  
 Ile Ser Thr Arg Ser Ala Arg Gly Pro Thr Met Gly Ala Gly Leu Asp  
 210 215 220  
 Val Trp Thr Asp Ser Asp Trp Met Val Cys Gly Gly Gly Pro Ala Leu  
 225 230 235 240  
 Thr Leu Trp His Leu Arg Ser Ser Thr Pro Thr Thr Ile Phe Pro Ile  
 245 250 255  
 Arg Ala Pro Gln Lys His Val Thr Phe Tyr Gln Asp Leu Ile Leu Ser

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      260      265      270
Ala Gly Gln Gly Arg Cys Val Asn Gln Trp Gln Leu Ser Gly Glu Leu
      275      280      285
Lys Ala Gln Val Pro Gly Ser Ser Pro Gly Leu Leu Ser Leu Ser Leu
      290      295      300
Asn Gln Gln Pro Ala Ala Pro Glu Cys Lys Val Leu Thr Ala Ala Gly
305      310      315      320
Asn Ser Cys Arg Val Asp Val Phe Thr Asn Leu Gly Tyr Arg Ala Phe
      325      330      335
Ser Leu Ser Phe
      340

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<210> 6259  
 <211> 384  
 <212> DNA  
 <213> Homo sapiens

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<400> 6259
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<210> 6260  
 <211> 128  
 <212> PRT  
 <213> Homo sapiens

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<400> 6260
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Leu Glu Ile Pro Asp Ala Phe Asp Arg Thr Glu Asn Met Leu Ser Met
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Gln Lys Asn Glu Lys Ile Lys Tyr Ser Arg Phe Ala Ala Thr Asn Thr
35      40      45
Arg Val Lys Ala Lys Gln Lys Pro Leu Ile Ser Asn Ser His Thr Asp
50      55      60
His Leu Met Gly Cys Thr Lys Ser Ala Glu Pro Gly Thr Glu Thr Ser
65      70      75      80
Gln Val Asn Ser Phe Ser Asp Leu Lys Ala Ser Thr Leu Val His Lys
85      90      95
Pro Gln Ser Asp Phe Thr Asn Asp Ala Leu Ser Pro Lys Phe Asn Leu
100      105      110
Ser Ser Ser Ile Ser Ser Glu Asn Ser Leu Ile Lys Gly Gly Ala Ala

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115 120 125

<210> 6261  
<211> 3619  
<212> DNA  
<213> Homo sapiens

<400> 6261  
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 3360  
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 3540  
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 3600  
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 3619

&lt;210&gt; 6262

&lt;211&gt; 431

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6262

Met Gly Pro Gln Phe Gly Trp Asp His Ser Leu His Lys Arg Lys Arg  
 1 5 10 15  
 Leu Pro Pro Val Lys Arg Ser Leu Val Tyr Tyr Leu Lys Asn Arg Glu  
 20 25 30  
 Val Arg Leu Gln Asn Glu Thr Ser Tyr Ser Arg Val Leu His Gly Tyr  
 35 40 45  
 Ala Ala Gln Gln Leu Pro Ser Leu Leu Lys Glu Arg Glu Phe His Leu  
 50 55 60  
 Gly Thr Leu Asn Lys Val Phe Ala Ser Gln Trp Leu Asn His Arg Gln  
 65 70 75 80  
 Val Val Cys Gly Thr Lys Cys Asn Thr Leu Phe Val Val Asp Val Gln  
 85 90 95  
 Thr Ser Gln Ile Thr Lys Ile Pro Ile Leu Lys Asp Arg Glu Pro Gly  
 100 105 110  
 Gly Val Thr Gln Gln Gly Cys Gly Ile His Ala Ile Glu Leu Asn Pro  
 115 120 125  
 Ser Arg Thr Leu Leu Ala Thr Gly Gly Asp Asn Pro Asn Ser Leu Ala  
 130 135 140  
 Ile Tyr Arg Leu Pro Thr Leu Asp Pro Val Cys Val Gly Asp Asp Gly  
 145 150 155 160  
 His Lys Asp Trp Ile Phe Ser Ile Ala Trp Ile Ser Asp Thr Met Ala  
 165 170 175  
 Val Ser Gly Ser Arg Asp Gly Ser Met Gly Leu Trp Glu Val Thr Asp  
 180 185 190  
 Asp Val Leu Thr Lys Ser Asp Ala Arg His Asn Val Ser Arg Val Pro

```

      195      200      205
Val Tyr Ala His Ile Thr His Lys Ala Leu Lys Asp Ile Pro Lys Glu
 210      215      220
Asp Thr Asn Pro Asp Asn Cys Lys Val Arg Ala Leu Ala Phe Asn Asn
 225      230      235      240
Lys Asn Lys Glu Leu Gly Ala Val Ser Leu Asp Gly Tyr Phe His Leu
      245      250      255
Trp Lys Ala Glu Asn Thr Leu Ser Lys Leu Leu Ser Thr Lys Leu Pro
      260      265      270
Tyr Cys Arg Glu Asn Val Cys Leu Ala Tyr Gly Ser Glu Trp Ser Val
      275      280      285
Tyr Ala Val Gly Ser Gln Ala His Val Ser Phe Leu Asp Pro Arg Gln
      290      295      300
Pro Ser Tyr Asn Val Lys Ser Val Cys Ser Arg Glu Arg Gly Ser Gly
 305      310      315      320
Ile Arg Ser Val Ser Phe Tyr Glu His Ile Ile Thr Val Gly Thr Gly
      325      330      335
Gln Gly Ser Leu Leu Phe Tyr Asp Ile Arg Ala Gln Arg Phe Leu Glu
      340      345      350
Glu Arg Leu Ser Ala Cys Tyr Gly Ser Lys Pro Arg Leu Ala Gly Glu
      355      360      365
Asn Leu Lys Leu Thr Thr Gly Lys Gly Trp Leu Asn His Asp Glu Thr
      370      375      380
Trp Arg Asn Tyr Phe Ser Asp Ile Asp Phe Phe Pro Asn Ala Val Tyr
 385      390      395      400
Thr His Cys Tyr Asp Ser Ser Gly Thr Lys Leu Phe Val Ala Gly Gly
      405      410      415
Pro Leu Pro Ser Gly Leu His Gly Asn Tyr Ala Gly Leu Trp Ser
      420      425      430

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&lt;210&gt; 6263

&lt;211&gt; 2508

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6263

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gaccaatctt cctgtccggg ctgctgcgac gcgggctccg caggttgacg gcggggcgcc
 120
ggggcgccctg aaggttaccg agtgcacgag cgcttagcgc ttcccgcgct gccccgccc
 180
ctggcccgcc gaccgcccc ccggctcgcc cgccagcccc tcggcgcccc gcggcgcgcg
 240
cggcggtggc ggcgacggtc gcaggaggtg ccgtctgcct ccaggtgcg cgttcgctc
 300
ccggagccgc ggaactcggc ggccgccatg gcgtccaaca tggaccggga gatgatcctg
 360
gcggattttc aggcattgtac tggcattgaa aacattgacg aagctattac attgcttgaa
 420
caaaataatt gggacttagt ggcagctatc aatggtgtaa taccacagga aaatggcatt
 480
ctacaaagtg aatatggagg tgagaccata ccaggacctg catttaatcc agcaagtcac
 540

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ccagcttcag ctctacttc ctctcttct tcagcgttc gacctgtaat gccatccagg  
600  
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660  
gttgatgtgg tacttgaaga cacctgtact gttggagaga ttaaacagat tctagaaaat  
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1320  
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1380  
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1440  
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1500  
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1740  
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1800  
acagcccaac aacaggaaga tataaaggac gaggatgaac gtgaagccag agaaaatgtg  
1860  
aagagagagc aagatgaggc ctatcgctt tcaactgagg ctgacagagc aaagaggga  
1920  
gctcacgaga gagagatggc agaacagttt cgtttggagc agattcgcaa agaacaagaa  
1980  
gagggaactg aggccatccg gctgtcctta gagcaagccc tgcctcctga gccaaaggaa  
2040  
gaaaatgctg agcctgtgag caaactgcg atccggaccc ccagtggcga gttcttggag  
2100  
cggcgtttcc tggccagcaa caagctccag attgtctttg atttttagc ttccaaagga  
2160

ttccatggg atgagtacaa gttactgagc acctttccta ggagagacgt aactcaactg  
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 2280  
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 2340  
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 2400  
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 2460  
 ttcccaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 2508

<210> 6264

<211> 654

<212> PRT

<213> Homo sapiens

<400> 6264

Met	Ala	Ser	Asn	Met	Asp	Arg	Glu	Met	Ile	Leu	Ala	Asp	Phe	Gln	Ala
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Cys	Thr	Gly	Ile	Glu	Asn	Ile	Asp	Glu	Ala	Ile	Thr	Leu	Leu	Glu	Gln
			20				25					30			
Asn	Asn	Trp	Asp	Leu	Val	Ala	Ala	Ile	Asn	Gly	Val	Ile	Pro	Gln	Glu
			35				40					45			
Asn	Gly	Ile	Leu	Gln	Ser	Glu	Tyr	Gly	Gly	Glu	Thr	Ile	Pro	Gly	Pro
			50				55				60				
Ala	Phe	Asn	Pro	Ala	Ser	His	Pro	Ala	Ser	Ala	Pro	Thr	Ser	Ser	Ser
			65				70				75				80
Ser	Ser	Ala	Phe	Arg	Pro	Val	Met	Pro	Ser	Arg	Gln	Ile	Val	Glu	Arg
							85				90				95
Gln	Pro	Arg	Met	Leu	Asp	Phe	Arg	Val	Glu	Tyr	Arg	Asp	Arg	Asn	Val
							100				105				110
Asp	Val	Val	Leu	Glu	Asp	Thr	Cys	Thr	Val	Gly	Glu	Ile	Lys	Gln	Ile
							115				120				125
Leu	Glu	Asn	Glu	Leu	Gln	Ile	Pro	Val	Ser	Lys	Met	Leu	Leu	Lys	Gly
							130				135				140
Trp	Lys	Thr	Gly	Asp	Val	Glu	Asp	Ser	Thr	Val	Leu	Lys	Ser	Leu	His
							145				150				155
Leu	Pro	Lys	Asn	Asn	Ser	Leu	Tyr	Val	Leu	Thr	Pro	Asp	Leu	Pro	Pro
							165				170				175
Pro	Ser	Ser	Ser	Ser	His	Ala	Gly	Ala	Leu	Gln	Glu	Ser	Leu	Asn	Gln
							180				185				190
Asn	Phe	Met	Leu	Ile	Ile	Thr	His	Arg	Glu	Val	Gln	Arg	Glu	Tyr	Asn
							195				200				205
Leu	Asn	Phe	Ser	Gly	Ser	Ser	Thr	Ile	Gln	Glu	Val	Lys	Arg	Asn	Val
							210				215				220
Tyr	Asp	Leu	Thr	Ser	Ile	Pro	Val	Arg	His	Gln	Leu	Trp	Glu	Gly	Trp
							225				230				235
Pro	Thr	Ser	Ala	Thr	Asp	Asp	Ser	Met	Cys	Leu	Ala	Glu	Ser	Gly	Leu
							245				250				255
Ser	Tyr	Pro	Cys	His	Arg	Leu	Thr	Val	Gly	Arg	Arg	Ser	Ser	Pro	Ala
							260				265				270
Gln	Thr	Arg	Glu	Gln	Ser	Glu	Glu	Gln	Ile	Thr	Asp	Val	His	Met	Val

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      275              280              285
Ser Asp Ser Asp Gly Asp Asp Phe Glu Asp Ala Thr Glu Phe Gly Val
290              295              300
Asp Asp Gly Glu Val Phe Gly Met Ala Ser Ser Ala Leu Arg Lys Ser
305              310              315              320
Pro Met Ile Cys Phe Leu Val Pro Glu Asn Ala Glu Asn Glu Gly Asp
      325              330              335
Ala Leu Leu Gln Phe Thr Ala Glu Phe Ser Ser Arg Tyr Gly Asp Cys
      340              345              350
His Pro Val Phe Phe Ile Gly Ser Leu Glu Ala Ala Phe Gln Glu Ala
      355              360              365
Phe Tyr Val Lys Ala Arg Asp Arg Lys Leu Leu Ala Ile Tyr Leu His
      370              375              380
His Asp Glu Ser Val Leu Thr Asn Val Phe Cys Ser Gln Met Leu Cys
      385              390              395              400
Ala Glu Ser Ile Val Ser Tyr Leu Ser Gln Asn Phe Ile Thr Trp Ala
      405              410              415
Trp Asp Leu Thr Lys Asp Ser Asn Arg Ala Arg Phe Leu Thr Met Cys
      420              425              430
Asn Arg His Phe Gly Ser Val Val Ala Gln Thr Ile Arg Thr Gln Lys
      435              440              445
Thr Asp Gln Phe Pro Leu Phe Leu Ile Ile Met Gly Lys Arg Ser Ser
      450              455              460
Asn Glu Val Leu Asn Val Ile Gln Gly Asn Thr Thr Val Asp Glu Leu
      465              470              475              480
Met Met Arg Leu Met Ala Ala Met Glu Ile Phe Thr Ala Gln Gln Gln
      485              490              495
Glu Asp Ile Lys Asp Glu Asp Glu Arg Glu Ala Arg Glu Asn Val Lys
      500              505              510
Arg Glu Gln Asp Glu Ala Tyr Arg Leu Ser Leu Glu Ala Asp Arg Ala
      515              520              525
Lys Arg Glu Ala His Glu Arg Glu Met Ala Glu Gln Phe Arg Leu Glu
      530              535              540
Gln Ile Arg Lys Glu Gln Glu Glu Glu Arg Glu Ala Ile Arg Leu Ser
      545              550              555              560
Leu Glu Gln Ala Leu Pro Pro Glu Pro Lys Glu Glu Asn Ala Glu Pro
      565              570              575
Val Ser Lys Leu Arg Ile Arg Thr Pro Ser Gly Glu Phe Leu Glu Arg
      580              585              590
Arg Phe Leu Ala Ser Asn Lys Leu Gln Ile Val Phe Asp Phe Val Ala
      595              600              605
Ser Lys Gly Phe Pro Trp Asp Glu Tyr Lys Leu Leu Ser Thr Phe Pro
      610              615              620
Arg Arg Asp Val Thr Gln Leu Asp Pro Asn Lys Ser Leu Leu Glu Val
      625              630              635              640
Lys Leu Phe Pro Gln Glu Thr Leu Phe Leu Glu Ala Lys Glu
      645              650

```

&lt;210&gt; 6265

&lt;211&gt; 1344

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6265

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60  
aacaccctctg gtagtggaac aattccttata gatctgtctc ctgatgataa agagtttcag  
120  
tctgtggagg aagagatgca aagtacagtt cgagagcaca gagatggagg tcatgcagggt  
180  
ggaatcttca acagatacaa tattctcaag attcagaagg ttgttaacaa gaaactatgg  
240  
gaaagataca ctacccggag aaaagaagtt tctgaagaaa accacaacca tgccaatgaa  
300  
cgaatgctat tcatgggtc tccttttgtg aatgcaatta tccacaaagg ctttgatgaa  
360  
aggcatgcgt acatagggtg tatgtttgga gctggcattt attttctga aaactcttcc  
420  
aaaagcaatc aatatgtata tggaattgga ggaggtactg ggtgtccagt tcacaagac  
480  
agatcttgtt acatttgcca caggcagctg ctcttttgcc gggtaacctt gggaaagtct  
540  
ttcctgcagt tcagtgcatt gaaaatggca cattctcctc caggctatca ctcagtcact  
600  
ggtaggcccc gtgtaaatgg cctagcatta gctgaatatg ttatttacag aggagaacag  
660  
gctttacctg agtatatta tactttaccag attatgaggc ctgaaggatg ggtcgtatgga  
720  
taaatagtta ttttaagaaa ctaattccac tgaacctaaa atcatcaaag cagcagtggc  
780  
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840  
gataaaaaatg tgaacgaagt ttaacattct gacttgataa agctttaata atgtacagtg  
900  
ttttctaaat atttcctgtt ttttcagcac tttacagat gccattccag gttaaactgg  
960  
gttgctctgta ctaaattata aacagagtta acttgaacct tttatatgtt atgcattgat  
1020  
tctaacaac tgtaatgccc tcaacagaac taattttact aatacaatac tgtgttcttt  
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1200  
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1260  
gagtgatctt tacatttgat tccagaggct atgttcagtt gttagttggg aaagattgag  
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1344

&lt;210&gt; 6266

&lt;211&gt; 240

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6266

Xaa Ala Leu Pro Ala Ser His Arg Pro Gly Gln Gln Gly Leu Asn Pro

```

      1           5           10           15
Tyr Leu Thr Leu Asn Thr Ser Gly Ser Gly Thr Ile Leu Ile Asp Leu
      20           25           30
Ser Pro Asp Asp Lys Glu Phe Gln Ser Val Glu Glu Met Gln Ser
      35           40           45
Thr Val Arg Glu His Arg Asp Gly Gly His Ala Gly Gly Ile Phe Asn
      50           55           60
Arg Tyr Asn Ile Leu Lys Ile Gln Lys Val Cys Asn Lys Lys Leu Trp
      65           70           75           80
Glu Arg Tyr Thr His Arg Arg Lys Glu Val Ser Glu Glu Asn His Asn
      85           90           95
His Ala Asn Glu Arg Met Leu Phe His Gly Ser Pro Phe Val Asn Ala
      100          105          110
Ile Ile His Lys Gly Phe Asp Glu Arg His Ala Tyr Ile Gly Gly Met
      115          120          125
Phe Gly Ala Gly Ile Tyr Phe Ala Glu Asn Ser Ser Lys Ser Asn Gln
      130          135          140
Tyr Val Tyr Gly Ile Gly Gly Gly Thr Gly Cys Pro Val His Lys Asp
      145          150          155          160
Arg Ser Cys Tyr Ile Cys His Arg Gln Leu Leu Phe Cys Arg Val Thr
      165          170          175
Leu Gly Lys Ser Phe Leu Gln Phe Ser Ala Met Lys Met Ala His Ser
      180          185          190
Pro Pro Gly His His Ser Val Thr Gly Arg Pro Ser Val Asn Gly Leu
      195          200          205
Ala Leu Ala Glu Tyr Val Ile Tyr Arg Gly Glu Gln Ala Tyr Pro Glu
      210          215          220
Tyr Leu Ile Thr Tyr Gln Ile Met Arg Pro Glu Gly Met Val Asp Gly
      225          230          235          240

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&lt;210&gt; 6267

&lt;211&gt; 328

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6267

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60
gggagagggg agggctaagc agagtgggga tgcccggcag tgaccagacc tctctcccca
120
gatgagcctt tcctgcagtt ccgaaggaac gtgttcttcc caaagcgcg ggagctccag
180
atccatgacg aggaggtcct gcggctgctc tatgaggagg ccaagggcaa cgtgctggct
240
gcacggtacc cgtgcgacgt ggaggactgc gaggtctctg gcgccttgg gtgccgcgtg
300
cagcttgggc cctaccagcc cggccggc
328

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&lt;210&gt; 6268

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 6268

Ala Glu Trp Gly Cys Pro Ala Val Thr Gln Pro Leu Ser Pro Asp Glu  
 1 5 10 15  
 Pro Phe Leu Gln Phe Arg Arg Asn Val Phe Phe Pro Lys Arg Arg Glu  
 20 25 30  
 Leu Gln Ile His Asp Glu Glu Val Leu Arg Leu Leu Tyr Glu Glu Ala  
 35 40 45  
 Lys Gly Asn Val Leu Ala Ala Arg Tyr Pro Cys Asp Val Glu Asp Cys  
 50 55 60  
 Glu Ala Leu Gly Ala Leu Val Cys Arg Val Gln Leu Gly Pro Tyr Gln  
 65 70 75 80  
 Pro Gly Arg

&lt;210&gt; 6269

&lt;211&gt; 923

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6269

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 gcttttagatc aactgcggga cgtgattgag tctcaggagg aactaatcca ccagctgagg  
 120  
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 180  
 aagaagctgg tggagagaa agctgcccac gccaaaacca aggtcctcct ggccaaggaa  
 240  
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 300  
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 360  
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 420  
 gaagatatac ttaatggcaa agagaatgag attaaagagt tgcagcaagt tatcagccag  
 480  
 cagaaacaga tcttcagccc accaccagcc ggctccgttg caggaatcac atgtctgact  
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 720  
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 780  
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 923

&lt;210&gt; 6270

<211> 307  
 <212> PRT  
 <213> Homo sapiens

<400> 6270

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 20           25           30
Glu Glu Leu Ile His Gln Leu Arg Asn Val Met Val Leu Gln Asp Glu
 35           40           45
Asn Phe Val Ser Lys Glu Glu Phe Gln Ala Val Glu Lys Lys Leu Val
 50           55           60
Glu Glu Lys Ala Ala His Ala Lys Thr Lys Val Leu Leu Ala Lys Glu
 65           70           75           80
Glu Glu Lys Leu Gln Phe Ala Leu Gly Glu Val Glu Val Leu Ser Lys
 85           90           95
Gln Leu Glu Lys Glu Lys Leu Ala Phe Glu Lys Ala Leu Ser Ser Val
100           105           110
Lys Ser Lys Val Leu Gln Glu Ser Ser Lys Lys Asp Gln Leu Ile Thr
115           120           125
Lys Cys Asn Glu Ile Glu Ser His Ile Ile Lys Gln Glu Asp Ile Leu
130           135           140
Asn Gly Lys Glu Asn Glu Ile Lys Glu Leu Gln Gln Val Ile Ser Gln
145           150           155           160
Gln Lys Gln Ile Phe Ser Pro Pro Pro Ala Gly Ser Val Ala Gly Ile
165           170           175
Thr Cys Leu Thr Ser Gly Ser Arg Ser Ser Arg Lys Ala Thr Trp Pro
180           185           190
Arg Cys Trp Thr Arg Ser Ile Arg Lys Pro Gln Gly His Val Arg Pro
195           200           205
Ala Ala Thr Ser Ile Pro Gly Lys Asn Lys Met Ala Ala Ala Phe Leu
210           215           220
Phe Ser Gly Cys Asn Pro Gln Pro Leu Pro Ser Leu Leu Trp Glu Ser
225           230           235           240
Pro Ala Ser Ser Pro Cys Tyr Phe Pro Pro Ser Trp Ile Val Val Gly
245           250           255
Val His Lys Val Gly Ala Cys Ser Leu Gly Glu Glu Leu Gly Leu Cys
260           265           270
Cys Leu Val Gly Thr Thr Ala Ser Phe Gly Tyr Leu Ile Pro Ser Tyr
275           280           285
Ile Asn Ser Pro Gly Tyr Pro Val Ile Phe His Pro Thr Pro Ser Val
290           295           300
Leu Val Asn
305

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<210> 6271  
 <211> 1437  
 <212> DNA  
 <213> Homo sapiens

<400> 6271

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60

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180  
agtggagctg gaatgggtgag accaaccatcc gtgacacctg gactctttca ggttctgaag  
240  
gctgtatact ttgcatgtta ctccaaagcc aaagagcaat ttaatggcat tttcgtgcct  
300  
aacagcaata ttgtgcactc tttctcagct ggctctgcag cttttatcac aaattcctta  
360  
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420  
aagcagatga atacactcca gtgtgctcgt tacgtttacc agaccgaagg cattcgtggc  
480  
ttctatagag gattaactgc ctggtatgct ggaatttccg aaactataat ctgcttgct  
540  
atttatgaaa gtttaagaa gtatctgaaa gaagctccat tagcctcttc tgcaaatggg  
600  
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&lt;210&gt; 6272

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6272

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245          250          255
Glu Gly Tyr Leu Ala Phe Tyr Arg Gly Leu Phe Ala Gln Leu Ile Arg
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 <211> 2355  
 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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&lt;210&gt; 6276

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6276

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 Asp Gly Ser Thr Val Val Pro Ala Gly Pro Glu Pro Pro Pro Gln Ser  
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 Ser Arg Ala Glu Ser Ser Ser Gly Gly Gly Thr Val Pro Ser Ser Ala  
 65 70 75 80  
 Gly Ile Leu Glu Gln Gly Pro Ser Pro Gly Asp Gly Ser Pro Pro Lys  
 85 90 95  
 Pro Lys Asp Pro Val Ser Ala Ala Val Pro Ala Pro Xaa Glu Lys Gln  
 100 105 110  
 Gln Ser Asp Ser Ile Trp Pro Lys Ser Ala Pro Gly Ser Cys Trp Leu  
 115 120 125  
 Pro Pro Ala Leu His Gly Pro Pro His Asn Ala Ala Gly Pro Ser Pro  
 130 135 140  
 His Thr Leu Arg Arg Ala Val Lys Lys Pro Ala Pro Ala Pro Pro Lys  
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 Pro Gly Asn Pro Pro Pro Gly His Pro Gly Gly Gln Ser Ser Ser Gly  
 165 170 175  
 Thr Ser Gln His Pro Pro Ser Leu Ser Pro Lys Pro Pro Thr Arg Ser  
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 Pro Ser Pro Pro Pro Ser Thr Arg Ala Ser Leu Gln Ala Ser Pro Pro  
 195 200 205  
 Pro Pro Pro Ser Ser Gln His Pro Gly Gly Thr Pro Xaa Ser Leu Ser  
 210 215 220  
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 245 250 255  
 Met Ala Leu Pro Ser Glu His Gly Leu Glu Gln Pro Ser His Thr Pro  
 260 265 270  
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 275 280 285  
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 Ala Gln Pro His Ala Gly Thr Leu Pro Arg Pro Arg Pro Val Pro Lys

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 Ile Phe Pro Glu Met His Ser Asp Ser Ala Ser Lys Asp Val Pro Gly  
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 <212> DNA  
 <213> Homo sapiens

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 His Gly Leu Arg His Gly Asp Phe Gln Arg Tyr Arg Gly Tyr Cys Ser  
 65 70 75 80  
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Lys Thr Leu Val Phe Lys Ala Tyr Arg Cys Phe Phe Ile Ala Gln Ser
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Pro Cys Lys Pro Leu Phe Phe Asp Leu Ala Leu Asn His Val Ala Phe
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&lt;210&gt; 6281

&lt;211&gt; 741

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6281

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&lt;210&gt; 6282

&lt;211&gt; 162

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6282

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&lt;211&gt; 2312

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6283

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 <212> PRT  
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&lt;210&gt; 6290

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6290

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 20 25 30  
 Ser Pro Asp Glu Gly Leu Ile Glu Asp Leu Thr Ile Glu Asp Lys Ala  
 35 40 45  
 Val Glu Gln Leu Ala Glu Gly Leu Leu Ser His Tyr Leu Pro Asp Leu  
 50 55 60  
 Gln Arg Ser Lys Gln Ala Leu Gln Glu Leu Thr Gln Asn Gln Val Val

65		70		75		80									
Leu	Leu	Asp	Thr	Leu	Glu	Gln	Glu	Ile	Ser	Lys	Phe	Lys	Glu	Cys	His
				85					90					95	
Ser	Met	Leu	Asp	Ile	Asn	Ala	Leu	Phe	Ala	Glu	Ala	Lys	His	Tyr	His
			100					105					110		
Ala	Lys	Leu	Val	Asn	Ile	Arg	Lys	Glu	Met	Leu	Met	Leu	His	Glu	Lys
		115					120					125			
Thr	Ser	Lys	Leu	Lys	Lys	Arg	Ala	Leu	Lys	Leu	Gln	Gln	Lys	Arg	Gln
		130				135					140				
Lys	Glu	Glu	Leu	Glu	Arg	Glu	Gln	Gln	Arg	Glu	Lys	Gly	Phe	Glu	Arg
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Glu	Lys	Gln	Leu	Thr	Ala	Arg	Pro	Ala	Lys	Arg	Met				
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&lt;210&gt; 6291

&lt;211&gt; 2718

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6291

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1020

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2280  
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<210> 6292

<211> 497

<212> PRT

<213> Homo sapiens

<400> 6292

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 35 40 45  
 Pro Arg Pro Ser Ser Leu Ser Asp Lys Thr Gln Leu His Ser Arg Trp  
 50 55 60  
 Leu Asp Ser Ser Arg Cys Leu Met Gln Gln Gly Ile Lys Ala Gly Asp  
 65 70 75 80  
 Ala Leu Trp Leu Arg Phe Lys Tyr Tyr Ser Phe Phe Asp Leu Asp Pro  
 85 90 95  
 Lys Thr Asp Pro Val Arg Leu Thr Gln Leu Tyr Glu Gln Ala Arg Trp  
 100 105 110  
 Asp Leu Leu Leu Glu Glu Ile Asp Cys Thr Glu Glu Glu Met Met Val  
 115 120 125  
 Phe Ala Ala Leu Gln Tyr His Ile Asn Lys Leu Ser Gln Ser Gly Glu  
 130 135 140  
 Val Gly Glu Pro Ala Gly Thr Asp Pro Gly Leu Asp Asp Leu Asp Val  
 145 150 155 160  
 Ala Leu Ser Asn Leu Glu Val Lys Leu Glu Gly Ser Ala Pro Thr Asp  
 165 170 175  
 Val Leu Asp Ser Leu Thr Thr Ile Pro Glu Leu Lys Asp Tyr Leu Arg  
 180 185 190  
 Ile Phe Arg Pro Arg Lys Leu Thr Leu Lys Gly Tyr Arg Gln His Trp  
 195 200 205  
 Val Val Phe Lys Glu Thr Thr Leu Ser Tyr Tyr Lys Ser Gln Asp Glu  
 210 215 220  
 Ala Pro Gly Asp Pro Ile Gln Gln Leu Asn Leu Lys Gly Cys Glu Val  
 225 230 235 240  
 Val Pro Asp Val Asn Val Ser Gly Gln Lys Phe Cys Ile Lys Leu Leu  
 245 250 255  
 Val Pro Ser Pro Glu Gly Met Ser Glu Ile Tyr Leu Arg Cys Gln Asp  
 260 265 270  
 Glu Gln Gln Tyr Ala Arg Trp Met Ala Gly Cys Arg Leu Ala Ser Lys  
 275 280 285  
 Gly Arg Thr Met Ala Asp Ser Ser Tyr Thr Ser Glu Val Gln Ala Ile  
 290 295 300  
 Leu Ala Phe Leu Ser Leu Gln His Gly Gln Trp Gly Pro Arg Gln Pro  
 305 310 315 320  
 Pro Pro Arg Pro Asp Ala Ser Ala Glu Gly Leu Asn Pro Tyr Gly Leu  
 325 330 335  
 Val Ala Pro Arg Phe Gln Arg Lys Phe Lys Ala Lys Gln Leu Thr Pro



340                      345                      350  
 Arg Ile Leu Glu Ala His Gln Asn Val Ala Gln Leu Ser Leu Ala Glu  
 355                      360                      365  
 Ala Gln Leu Arg Phe Ile Gln Ala Trp Gln Ser Leu Pro Asp Phe Gly  
 370                      375                      380  
 Ile Ser Tyr Val Met Val Arg Phe Lys Gly Ser Arg Lys Asp Glu Ile  
 385                      390                      395                      400  
 Leu Gly Ile Ala Asn Asn Arg Leu Ile Arg Ile Asp Leu Ala Val Gly  
 405                      410                      415  
 Asp Val Val Lys Thr Trp Arg Phe Ser Asn Met Arg Gln Trp Asn Val  
 420                      425                      430  
 Asn Trp Asp Ile Arg Gln Val Ala Ile Glu Phe Asp Glu His Ile Asn  
 435                      440                      445  
 Val Ala Phe Ser Cys Val Ser Ala Ser Cys Arg Ile Val His Glu Tyr  
 450                      455                      460  
 Ile Gly Asp Tyr Ile Phe Leu Ser Thr Arg Glu Arg Ala Arg Gly Glu  
 465                      470                      475                      480  
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<210> 6293  
 <211> 750  
 <212> DNA  
 <213> Homo sapiens

<400> 6293  
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 120  
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 360  
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 420  
 aacgccttcc aggtgctcat ggagctggaa aaacctgtgc tcatatcact gggaaaaggg  
 480  
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 600  
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 660  
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<210> 6294  
 <211> 250  
 <212> PRT  
 <213> Homo sapiens

<400> 6294  
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 20 25 30  
 Gly Gly Thr Ala Ile Ala Gly Ser Val Glu Ala Val Ala Arg Leu Lys  
 35 40 45  
 Arg Ser Arg Leu Lys Val Arg Phe Cys Thr Asn Glu Ser Gln Lys Ser  
 50 55 60  
 Arg Ala Glu Leu Val Gly Gln Leu Gln Arg Leu Gly Phe Asp Ile Ser  
 65 70 75 80  
 Glu Gln Glu Val Thr Ala Pro Ala Pro Ala Cys Gln Ile Leu Lys  
 85 90 95  
 Glu Arg Gly Leu Arg Pro Tyr Leu Leu Ile His Asp Gly Val Arg Ser  
 100 105 110  
 Glu Phe Asp Gln Ile Asp Thr Ser Asn Pro Asn Cys Val Val Ile Ala  
 115 120 125  
 Asp Ala Gly Glu Ser Phe Ser Tyr Gln Asn Met Asn Asn Ala Phe Gln  
 130 135 140  
 Val Leu Met Glu Leu Glu Lys Pro Val Leu Ile Ser Leu Gly Lys Gly  
 145 150 155 160  
 Arg Tyr Tyr Lys Glu Thr Ser Gly Leu Met Leu Asp Val Gly Pro Tyr  
 165 170 175  
 Met Lys Ala Leu Glu Tyr Ala Cys Gly Ile Lys Ala Glu Val Val Gly  
 180 185 190  
 Lys Pro Ser Pro Glu Phe Phe Lys Ser Ala Leu Gln Ala Ile Gly Val  
 195 200 205  
 Glu Ala His Gln Ala Val Met Ile Gly Asp Asp Ile Val Gly Asp Val  
 210 215 220  
 Gly Gly Ala Gln Arg Cys Gly Met Arg Ala Leu Gln Val Arg Thr Gly  
 225 230 235 240  
 Lys Phe Arg Pro Ser Asp Glu His His Pro  
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<210> 6295  
 <211> 2091  
 <212> DNA  
 <213> Homo sapiens

<400> 6295  
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 120  
 cgcgcccgcg cagccctccg gctgtggggc cgggtagttg aacgggtcga ggccggggga  
 180  
 ggcggtggggc cgtttcaggc ctgcggctgt cggctggtgc ttggcgscag ggacgatgtg  
 240

agtgcggggc tgagaggcag ccatggggcc cgcggtgagc ccttggaccc ggcgcgcccc  
300  
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360  
gctcccagtt tcttcttttc gagtattaaa ggtggaagaa ggtccatc ttttctgtg  
420  
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480  
gatgtagctg agctgattcg ggccagagcc tgccagaggg tgggtggtcat ggtgggggcc  
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1860

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 2091

<210> 6296

<211> 399

<212> PRT

<213> Homo sapiens

<400> 6296

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 20 25 30  
 Ala Cys Gly Cys Arg Leu Val Leu Gly Gly Arg Asp Asp Val Ser Ala  
 35 40 45  
 Gly Leu Arg Gly Ser His Gly Ala Arg Gly Glu Pro Leu Asp Pro Ala  
 50 55 60  
 Arg Pro Leu Gln Arg Pro Pro Arg Pro Glu Val Pro Arg Ala Phe Arg  
 65 70 75 80  
 Arg Gln Pro Arg Ala Ala Ala Pro Ser Phe Phe Phe Ser Ser Ile Lys  
 85 90 95  
 Gly Gly Arg Arg Ser Ile Ser Phe Ser Val Gly Ala Ser Ser Val Val  
 100 105 110  
 Gly Ser Gly Gly Ser Ser Asp Lys Gly Lys Leu Ser Leu Gln Asp Val  
 115 120 125  
 Ala Glu Leu Ile Arg Ala Arg Ala Cys Gln Arg Val Val Val Met Val  
 130 135 140  
 Gly Ala Gly Ile Ser Thr Pro Ser Gly Ile Pro Asp Phe Arg Ser Pro  
 145 150 155 160  
 Gly Ser Gly Leu Tyr Ser Asn Leu Gln Gln Tyr Asp Leu Pro Tyr Pro  
 165 170 175  
 Glu Ala Ile Phe Glu Leu Pro Phe Phe Phe His Asn Pro Lys Pro Phe  
 180 185 190  
 Phe Thr Leu Ala Lys Glu Leu Tyr Pro Gly Asn Tyr Lys Pro Asn Val  
 195 200 205  
 Thr His Tyr Phe Leu Arg Leu Leu His Asp Lys Gly Leu Leu Leu Arg  
 210 215 220  
 Leu Tyr Thr Gln Asn Ile Asp Gly Leu Glu Arg Val Ser Gly Ile Pro  
 225 230 235 240  
 Ala Ser Lys Leu Val Glu Ala His Gly Thr Phe Ala Ser Ala Thr Cys  
 245 250 255  
 Thr Val Cys Gln Arg Pro Phe Pro Gly Glu Asp Ile Arg Ala Asp Val  
 260 265 270  
 Met Ala Asp Arg Val Pro Arg Cys Pro Val Cys Thr Gly Val Val Lys  
 275 280 285  
 Pro Asp Ile Val Phe Phe Gly Glu Pro Leu Pro Gln Arg Phe Leu Leu  
 290 295 300  
 His Val Val Asp Phe Pro Met Ala Asp Leu Leu Leu Ile Leu Gly Thr

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305          310          315          320
Ser Leu Glu Val Glu Pro Phe Ala Ser Leu Thr Glu Ala Val Arg Ser
          325          330          335
Ser Val Pro Arg Leu Leu Ile Asn Arg Asp Leu Val Gly Pro Leu Ala
          340          345          350
Trp His Pro Arg Ser Arg Asp Val Ala Gln Leu Gly Asp Val Val His
          355          360          365
Gly Val Glu Ser Leu Val Glu Leu Leu Gly Trp Thr Glu Glu Met Arg
          370          375          380
Asp Leu Val Gln Arg Glu Thr Gly Lys Leu Asp Gly Pro Asp Lys
385          390          395

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<210> 6297  
 <211> 472  
 <212> DNA  
 <213> Homo sapiens

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<400> 6297
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120
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180
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240
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420
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472

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<210> 6298  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens

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<400> 6298
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          20          25          30
Pro Phe Gly Leu Glu Glu Pro Gln Trp Val Pro Asp Lys Glu Cys Arg
          35          40          45
Arg Cys Met Gln Cys Asp Ala Lys Phe Asp Phe Leu Thr Arg Lys His
          50          55          60
His Cys Arg Arg Cys Gly Lys Cys Phe Cys Asp Arg Cys Cys Ser Gln
          65          70          75          80
Lys Val Pro Leu Arg Arg Met Cys Phe Val Asp Pro Val Arg Gln Cys
          85          90          95
Ala Glu Cys Ala Leu Val Ser Leu Lys Glu Ala Glu Phe Tyr Asp Lys

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100 105 110  
 Gln Leu Lys Val<sup>1</sup> Leu Leu Ser Gly Lys Asp Gly Cys Pro Ala Gln Ser  
 115 120 125  
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 130 135 140  
 Cys Ala  
 145  
 <210> 6299  
 <211> 1466  
 <212> DNA  
 <213> Homo sapiens  
 <400> 6299  
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 720  
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<212> PRT

<213> Homo sapiens

<400> 6300

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Gly Asp Ile His Thr Thr Leu Leu Ser Ala Val Ile Pro Asn Ala Phe
      325              330              335
Arg Leu Val Lys Arg Lys Pro Pro Ser Phe Phe Gly Ala Ser Phe Leu
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Met Gly Ser Leu Gly Gly Met Gly Tyr Phe Ala Tyr Trp Tyr Leu Lys
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Lys Lys Tyr Ile
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<213> Homo sapiens

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<210> 6302
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&lt;213&gt; Homo sapiens

&lt;400&gt; 6302

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 Ser Ser Val Ser Arg Gly Asn Val Ser Thr Pro Pro Arg His Ser Ser  
 50 55 60  
 Gly Ser Leu Thr Pro Pro Val Thr Pro Pro Ile Thr Pro Ser Ser Ser  
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 Asp Tyr Glu Glu Ser Asp Ser Asp Glu Ser Trp Thr Thr Glu Ser Ala  
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 Glu Lys Pro Phe Ala Cys Pro Val Pro Gly Cys Lys Lys Arg Tyr Lys  
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&lt;210&gt; 6303

&lt;211&gt; 676

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6303

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 Val Phe Val Glu Ser Ser Glu Thr Leu Asp Tyr Gln Met Ala Phe Ala  
 35 40 45  
 Asp Ser His Leu Trp Lys Leu Leu Asp Arg His Ala Asn Thr Ile Arg  
 50 55 60  
 Leu Phe Val Leu Leu Pro Glu Gln Ser Pro Val Ser Tyr Ser Lys Arg  
 65 70 75 80  
 Thr Ala Tyr Gln Lys Ala Gly Gly Asp Ser Gly Asn Val Asp Asp Asp  
 85 90 95  
 Cys Glu Arg Val Lys Gly Pro Val Gly Ser Leu Lys Ser Val Glu Ala  
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 115 120 125  
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<211> 474

<212> PRT

<213> Homo sapiens

<400> 6306

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Ala	Ser	Gly	Ser	Glu	Asp	Cys	Thr	Val	Met	Val	Trp	Gln	Ile	Pro	Glu
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Cys	Lys	Asp	Lys	Ser	Val	Arg	Ile	Ile	Asp	Pro	Arg	Arg	Gly	Thr	Leu
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Val	Ala	Glu	Arg	Glu	Lys	Ala	His	Glu	Gly	Ala	Arg	Pro	Met	Arg	Ala
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Tyr	Asp	Pro	Asp	Thr	Ser	Ile	Ile	Tyr	Leu	Cys	Gly	Lys	Gly	Asp	Ser

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 Pro Lys Arg Gly Leu Asp Val Asn Lys Cys Glu Ile Ala Arg Phe Phe  
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 Lys Leu His Glu Arg Lys Cys Glu Pro Ile Ile Met Thr Val Pro Arg  
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&lt;210&gt; 6307

&lt;211&gt; 2119

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6307

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1020  
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1140  
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1200  
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1260  
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1320  
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1380  
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1440  
acaaaacttt tgggaagtgtc agatgatccc caagtcttag ctgttgctgc tcacgatgtt  
1500  
ggagaatatg tgcggcatta tccacgaggc aaacgggtca tcgagcagct cgggtgggaag  
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cagctgggtc tgaaccacat gcatcatgaa gaccagcagg tccgtataa tgctctgctg  
1620  
gccgtgcaga agctcatggt gcacaactgg gaataccttg gcaagcagct ccagtcagg  
1680  
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1740  
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1800  
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2040  
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2100  
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2119

&lt;210&gt; 6308

&lt;211&gt; 483

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6308

Met Thr Lys Met Asp Ile Arg Gly Ala Val Asp Ala Ala Val Pro Thr  
1 5 10 15  
Asn Ile Ile Ala Lys Ala Ala Glu Val Arg Ala Asn Lys Val Asn  
20 25 30  
Trp Gln Ser Tyr Leu Gln Gly Gln Met Ile Ser Ala Glu Asp Cys Glu  
35 40 45  
Phe Ile Gln Arg Phe Glu Met Lys Arg Ser Pro Glu Glu Lys Gln Glu  
50 55 60  
Met Leu Gln Thr Glu Gly Ser Gln Cys Ala Lys Thr Phe Ile Asn Leu  
65 70 75 80  
Met Thr His Ile Cys Lys Glu Gln Thr Val Gln Tyr Ile Leu Thr Met  
85 90 95  
Val Asp Asp Met Leu Gln Glu Asn His Gln Arg Val Ser Ile Phe Phe  
100 105 110  
Asp Tyr Ala Arg Cys Ser Lys Asn Thr Ala Trp Pro Tyr Phe Leu Pro  
115 120 125  
Met Leu Asn Arg Gln Asp Pro Phe Thr Val His Met Ala Ala Arg Ile  
130 135 140  
Ile Ala Lys Leu Ala Ala Trp Gly Lys Glu Leu Met Glu Gly Ser Asp  
145 150 155 160  
Leu Asn Tyr Tyr Phe Asn Trp Ile Lys Thr Gln Leu Ser Ser Gln Lys  
165 170 175  
Leu Arg Gly Ser Gly Val Ala Val Glu Thr Gly Thr Val Ser Ser Ser  
180 185 190  
Asp Ser Ser Gln Tyr Val Gln Cys Val Ala Gly Cys Leu Gln Leu Met  
195 200 205  
Leu Arg Val Asn Glu Tyr Arg Phe Ala Trp Val Glu Ala Asp Gly Val  
210 215 220  
Asn Cys Ile Met Gly Val Leu Ser Asn Lys Cys Gly Phe Gln Leu Gln  
225 230 235 240  
Tyr Gln Met Ile Phe Ser Ile Trp Leu Leu Ala Phe Ser Pro Gln Met  
245 250 255  
Cys Glu His Leu Arg Arg Tyr Asn Ile Ile Pro Val Leu Ser Asp Ile  
260 265 270  
Leu Gln Glu Ser Val Lys Glu Lys Val Thr Arg Ile Ile Leu Ala Ala  
275 280 285  
Phe Arg Asn Phe Leu Glu Lys Ser Thr Glu Arg Glu Thr Arg Gln Glu  
290 295 300  
Tyr Ala Leu Ala Met Ile Gln Cys Lys Val Leu Lys Gln Leu Glu Asn  
305 310 315 320  
Leu Glu Gln Gln Lys Tyr Asp Asp Glu Asp Ile Ser Glu Asp Ile Lys  
325 330 335  
Phe Leu Leu Glu Lys Leu Gly Glu Ser Val Gln Asp Leu Ser Ser Phe  
340 345 350  
Asp Glu Tyr Ser Ser Glu Leu Lys Ser Gly Arg Leu Glu Trp Ser Pro  
355 360 365  
Val His Lys Ser Glu Lys Phe Trp Arg Glu Asn Ala Val Arg Leu Asn  
370 375 380  
Glu Lys Asn Tyr Glu Leu Leu Lys Ile Leu Thr Lys Leu Leu Glu Val  
385 390 395 400  
Ser Asp Asp Pro Gln Val Leu Ala Val Ala Ala His Asp Val Gly Glu



```

          405          410          415
Tyr Val Arg His Tyr Pro Arg Gly Lys Arg Val Ile Glu Gln Leu Gly
          420          425          430
Gly Lys Gln Leu Val Met Asn His Met His His Glu Asp Gln Gln Val
          435          440          445
Arg Tyr Asn Ala Leu Leu Ala Val Gln Lys Leu Met Val His Asn Trp
          450          455          460
Glu Tyr Leu Gly Lys Gln Leu Gln Ser Glu Gln Pro Gln Thr Ala Ala
          465          470          475          480
Ala Arg Ser

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<210> 6309  
 <211> 564  
 <212> DNA  
 <213> Homo sapiens

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<400> 6309
cggccgcagc gttcacggtg acatcgcaaa aggcgagggg gagacgcgcc cgcgggaccc
60
cttccccggtg tgctcccacg tggcgctcgac cggaagaag gggcggtag ggagcccttc
120
ccaggcgccct cccacggggt tccccgcag ccgcgacacc accaacagtc gccgcaaccg
180
ccgcgtggaa cagacgaccc gggctctcaa gagcgggcgc gggcgggacg cagcccttg
240
tccatctcgg gcgcgcctg atgcactcct actgcgccc ggtcctcccg gcctgtctca
300
ctttgggggg ctccgggtcc tcacggggga cgctgcacg taagccagga cggcgctctg
360
caggaagctc gccctctggg cctcctcgtc ccgatgcgg gcgatctccg cctcccggag
420
ccgcagcttc tcccgagag acgcgttctc gctctccctg tccagcagcg cgatctgagc
480
tcaactggaac ctccacctcc cagggttcgag tgattctcct gcctcagcct cctgagtagc
540
tggtattaca gggtgccacc acta
564

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<210> 6310  
 <211> 83  
 <212> PRT  
 <213> Homo sapiens

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<400> 6310
Cys Thr Pro Thr Ala Pro Gly Ser Ser Arg Pro Val Ser Leu Trp Gly
1      5      10      15
Ala Gln Gly Pro His Gly Gly Arg Leu His Val Ser Gln Asp Gly Val
20     25     30
Leu Gln Glu Ala Arg Pro Leu Gly Leu Leu Val Pro Asp Ala Gly Asp
35     40     45
Leu Arg Leu Pro Glu Pro Gln Leu Leu Pro Glu Arg Arg Val Leu Ala
50     55     60
Leu Pro Val Gln Gln Arg Asp Leu Ser Ser Leu Glu Pro Pro Pro Pro

```

65  
Arg Phe Glu

70

75

80

<210> 6311  
<211> 1548  
<212> DNA  
<213> Homo sapiens

<400> 6311  
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60  
tgagcttttt actgaatttt atagcaactc tgatttcttc ctttaaataga ttggaggctt  
120  
tttaaagatc ttatggggct caaataactaa cttcataaat ggccttttga ataacagcag  
180  
caataaatct ctcagctgat atttcaattt actaaggaag cacaaattaa aacattcctg  
240  
ctacacagtc atgggctggc acatgtctgg ttggatgaat acaaggagca gtatttttcc  
300  
ttaagacctg acctgaagac gaaaagctat ggcaatatca gtgagcgtgt ggaactgaga  
360  
aagaagtgtg gctgtaaatc atttaaatgg tatttggata atgtataccc agagatgcag  
420  
atatctgggt ccacagccaa accccaacaa cccatttttg tcaatagagg gccaaaacga  
480  
cccaaagtcc ttcaacgtgg aaggctctat cacctccaga ccaacaaatg cctggtggcc  
540  
caggggccgc caagtcagaa gggaggtctc gtggtgctta aggcctgtga ctacagtgc  
600  
ccaaatcaga tctggatcta taatgaagag catgaattgg ttttaaatag tctccttgt  
660  
ctagatatgt cagagactcg ctcatcagac ccgccacggc tcatgaaatg ccacgggtca  
720  
ggaggatccc agcagtggac ctttgggaaa aacaatcggc tataccaggt gtcggttggg  
780  
cagtgcctga gagcagtga tcccctgggt cagaagggtc ctgtcgccat ggcgatctgc  
840  
gatggctcct cttcacagca gtggcatttg gaaggttaag gtggatgctg tggcgggaac  
900  
gttgcttcat caggcgttgc ctccggtgtg gagtttgggg ctttaggaaa gcctgggttg  
960  
ggtggagcag aaccatcttg gagaagatga cagttccctg tcctcccgga gatgcctggg  
1020  
tgtgttagca gaggtgacac gtgtctgaca gagacgggag ctctgagtgt ccacgggtga  
1080  
agaagtgagt gtccacgggt gaagaagtga gtatgtttca cctggacatt aaggtgatgt  
1140  
ttgagctgct gttaagggaat ttcttgctta tagaggcaaa ccacagtatc attttaactc  
1200  
tagaattggg cttgtacaga aggataaaac ccaggaaaat ggatatttct attcagattt  
1260  
atttatgcct ctttttaatc ccctttaatg atgcagtggg ttttatctga tcaggaaatt  
1320

gtcatgattt cctttcttag acttcatagg agatagtgtt ttaaaaaaa aaaaacttct  
 1380  
 attatttggt tagtatgttg taagtagatc attttaaaaa actgaatcta tattatgttt  
 1440  
 aacttcagaa ggcatcattt ataagacagt atggcagtta attataaaat tattttgatg  
 1500  
 aattatgata caatctacat aataaagaat ccttttgatt aaaaaaaa  
 1548

<210> 6312

<211> 234

<212> PRT

<213> Homo sapiens

<400> 6312

Gln Gln Gln Ile Ile Ser Gln Leu Ile Phe Gln Phe Thr Lys Glu Ala  
 1 5 10 15  
 Gln Ile Lys Thr Phe Leu Leu His Ser His Gly Leu Ala His Val Trp  
 20 25 30  
 Leu Asp Glu Tyr Lys Glu Gln Tyr Phe Ser Leu Arg Pro Asp Leu Lys  
 35 40 45  
 Thr Lys Ser Tyr Gly Asn Ile Ser Glu Arg Val Glu Leu Arg Lys Lys  
 50 55 60  
 Leu Gly Cys Lys Ser Phe Lys Trp Tyr Leu Asp Asn Val Tyr Pro Glu  
 65 70 75 80  
 Met Gln Ile Ser Gly Ser His Ala Lys Pro Gln Gln Pro Ile Phe Val  
 85 90 95  
 Asn Arg Gly Pro Lys Arg Pro Lys Val Leu Gln Arg Gly Arg Leu Tyr  
 100 105 110  
 His Leu Gln Thr Asn Lys Cys Leu Val Ala Gln Gly Arg Pro Ser Gln  
 115 120 125  
 Lys Gly Gly Leu Val Val Leu Lys Ala Cys Asp Tyr Ser Asp Pro Asn  
 130 135 140  
 Gln Ile Trp Ile Tyr Asn Glu Glu His Glu Leu Val Leu Asn Ser Leu  
 145 150 155 160  
 Leu Cys Leu Asp Met Ser Glu Thr Arg Ser Ser Asp Pro Pro Arg Leu  
 165 170 175  
 Met Lys Cys His Gly Ser Gly Gly Ser Gln Gln Trp Thr Phe Gly Lys  
 180 185 190  
 Asn Asn Arg Leu Tyr Gln Val Ser Val Gly Gln Cys Leu Arg Ala Val  
 195 200 205  
 Asp Pro Leu Gly Gln Lys Gly Ser Val Ala Met Ala Ile Cys Asp Gly  
 210 215 220  
 Ser Ser Ser Gln Gln Trp His Leu Glu Gly  
 225 230

<210> 6313

<211> 725

<212> DNA

<213> Homo sapiens

<400> 6313

tttttttttt tttttttttt tttttttttg gtaattaaca taatttatta cgcaaaaaat  
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gagaaaaat acagcaggag ggaatgaggag tacacatagg aaattctgt gattttcttc  
 120  
 attttgatcg tattgctttc ttgtcttcag gaggaagat ttcgacttca aaagtaacaa  
 180  
 aatattttaag aagagaattc acatctttct gttctagctg gtattcttgc attattttct  
 240  
 cagcagtcga ggtttctggg aaaagcttat gattattgag aagtgtcaat gcttctacaa  
 300  
 tggaaatttt gcctttggga atgctcttaa tatttatcat atcaaaatga tggcttttcg  
 360  
 gcaatctgaa ttcttctggc tcttgacatg ttccagcagc ttttacctgc aaggaagaca  
 420  
 caggatcttt ggaatcaaca tacacatctt ttagaaacga cagcagcttt tcatctttac  
 480  
 gagcaatctc tcttttaact tctggataga gactaatctg ctctcgagg aggtctgttg  
 540  
 tagaggggtg tctgggagcg acagagggtt tcatcttgct gatttcccg tccgctcggt  
 600  
 tctctaggtt gaaattctctg ataccgcaa tcaactagtc tcccatctcc tcataacatt  
 660  
 atgcgctcag gttcaggccg cacgtgggaa caccggcgca ggacaactct cgggacaccc  
 720  
 ggagc  
 725

&lt;210&gt; 6314

&lt;211&gt; 175

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6314

Met Gly Ala Leu Val Ile Arg Gly Ile Arg Asn Phe Asn Leu Glu Asn  
 1 5 10 15  
 Arg Ala Glu Arg Glu Ile Ser Lys Met Lys Pro Ser Val Ala Pro Arg  
 20 25 30  
 His Pro Ser Thr Asn Ser Leu Leu Arg Glu Gln Ile Ser Leu Tyr Pro  
 35 40 45  
 Glu Val Lys Gly Glu Ile Ala Arg Lys Asp Glu Lys Leu Leu Ser Phe  
 50 55 60  
 Leu Lys Asp Val Tyr Val Asp Ser Lys Asp Pro Val Ser Ser Leu Gln  
 65 70 75 80  
 Val Lys Ala Ala Glu Thr Cys Gln Glu Pro Lys Glu Phe Arg Leu Pro  
 85 90 95  
 Lys Asp His His Phe Asp Met Ile Asn Ile Lys Ser Ile Pro Lys Gly  
 100 105 110  
 Lys Ile Ser Ile Val Glu Ala Leu Thr Leu Leu Asn Asn His Lys Leu  
 115 120 125  
 Phe Pro Glu Thr Trp Thr Ala Glu Lys Ile Met Gln Glu Tyr Gln Leu  
 130 135 140  
 Glu Gln Lys Asp Val Asn Ser Leu Leu Lys Tyr Phe Val Thr Phe Glu  
 145 150 155 160  
 Val Glu Ile Phe Pro Pro Glu Asp Lys Lys Ala Ile Arg Ser Lys  
 165 170 175

<210> 6315  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<400> 6315  
 caagaatcca ttgaagccag caagactgca ctttgtcctg aaagatttgt acccctaagt  
 60  
 gctcaaaaca gaaaacttgt ggaggccata aaacaaggtc acattcctga gctccaggag  
 120  
 tatgtaaaat ataaatatgc aatggatgaa gctgatgaaa aaggatgggt tccattgcat  
 180  
 gaagctgttg ttcaacccat tcaacaaata cttgagattg ttctggatgc atcctataag  
 240  
 acactctggg aattcaagac ctgtgatgga gaaacaccct tgactttggc agtcaaagct  
 300  
 ggtctgtggg aaaatgtaag aactttatta gaaaaggagg tgtggcccaa cacaaaaaat  
 360  
 gataaaggag agaccccc  
 378

<210> 6316  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<400> 6316  
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 1 5 10 15  
 Val Pro Leu Ser Ala Gln Asn Arg Lys Leu Val Glu Ala Ile Lys Gln  
 20 25 30  
 Gly His Ile Pro Glu Leu Gln Glu Tyr Val Lys Tyr Lys Tyr Ala Met  
 35 40 45  
 Asp Glu Ala Asp Glu Lys Gly Trp Phe Pro Leu His Glu Ala Val Val  
 50 55 60  
 Gln Pro Ile Gln Gln Ile Leu Glu Ile Val Leu Asp Ala Ser Tyr Lys  
 65 70 75 80  
 Thr Leu Trp Glu Phe Lys Thr Cys Asp Gly Glu Thr Pro Leu Thr Leu  
 85 90 95  
 Ala Val Lys Ala Gly Leu Val Glu Asn Val Arg Thr Leu Leu Glu Lys  
 100 105 110  
 Gly Val Trp Pro Asn Thr Lys Asn Asp Lys Gly Glu Thr Pro  
 115 120 125

<210> 6317  
 <211> 1201  
 <212> DNA  
 <213> Homo sapiens

<400> 6317  
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 60  
 ttcttaagat gtcttgccga agtagcaaga gcggaggggtg actgtgtgag caggagcgag  
 120

agggcgccag ctctcgggg ggaggttcct actgcgcgcc ccacctgtg caagaatgtc  
180  
aggcttttagg gcagctgccca taggccccag gggcatcagg actctgcctc tgaaccagag  
240  
ctgctttccc gactaacttc aatctggaga gatggttaagt tatctaaccg gctcttcttt  
300  
tggcgagact gctctttctc cttaatcaga gcccccatg ccttttgcag ctccagagtcg  
360  
tcttcctcag cgccaggcac cctgtgatcc actttctctg tattcttttc tttggtcttg  
420  
ggcgagttc cttagcgagt ccataaatta cctgatttct tctcccgagt atcggcgtag  
480  
aggcctttac tatctgcct gggaacacct agcctactat gcacatcaga agagggtctc  
540  
ctccgaacga cgggggtact actaaaagcc ttttccggag aatgtggtct ttttccaac  
600  
cgctggcgta tatctgattt agtactgctg actggtggcc gtggacggga gtgctgacgt  
660  
ttctcatcta atagatgtcg gacatctgca aatttctcag gtgtaattt gttaccaatt  
720  
cggtttttga tattgcttga agatacacta tctgcccctc tggagtctct aatatttttc  
780  
aactgagatt ccacttcgtc agcatacata gtcattttca tgcttttctt tgggaaaggc  
840  
gtggaaatca ttttcagttc tagatcatag tccatttcat ctgagcttga gctgctggca  
900  
ctggatcgtc tagacgcgct ccgctcccgg ggctgtttga gagccgggag ctctcgtgg  
960  
tactctacca ccactctgct atctgcatcc atgtcttggg tttctctctc ctcttctct  
1020  
tcttctctct cctctctctc ctctcttca atgggttctt cgggaacatt cactagccca  
1080  
gaatgtcgat gtttatacga cgtcaagcca acgtcatccc caatcagggc tctcttcttg  
1140  
atcacgtccc gctgaatacg acgggaatga tatcttcgct tccatgaatt gctaagaatt  
1200  
c  
1201

&lt;210&gt; 6318

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6318

Ser	Ile	Ser	Ser	Glu	Ser	Glu	Leu	Leu	Ala	Leu	Asp	Arg	Leu	Asp	Ala
1				5					10					15	
Leu	Arg	Ser	Arg	Gly	Cys	Leu	Arg	Ala	Gly	Ser	Ser	Ser	Trp	Tyr	Ser
			20					25					30		
Thr	Thr	Thr	Leu	Ser	Ser	Ala	Ser	Met	Ser	Trp	Ser	Ser	Ser	Ser	Ser
			35				40					45			
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Met	Gly	Ser
	50					55				60					
Gly	Thr	Phe	Thr	Ser	Pro	Glu	Cys	Arg	Cys	Leu	Tyr	Asp	Val	Lys	Pro

65                      70                      75  
Thr Ser Ser Pro Ile Arg Ala Leu Phe Leu Ile Thr Ser Arg  
85                      90

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<210> 6319
<211> 345
<212> DNA
<213> Homo sapiens
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4400> 6319
gcgcgcgcgc tgtggggccgc ctccgcagcc ggccacctgg acgtggtgcg gagcctgctg
60
cgccgcgggg cctcggtgaa ccgcaccacg cgcaccaact ccacgcctct ccgcgcgcgc
120
tgcttcgacg gccacctgga ggtggtgctg tacctggtcg gcgagcacca ggccgacctg
180
gaggtggcca accggcacgg ccacacgtgc ctcatgatct cgtgctacaa gggccaccgt
240
gagatcgccc gctacctgct ggagcagggc gcccaggtga accggcgcg cgccaagggc
300
aacacggccc tgcatactg cgccgagtc gccagcctgg agatc
345

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<210> 6320
<211> 115
<212> PRT
<213> Homo sapiens
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<400> 6320
Ala Pro Pro Leu Trp Ala Ala Ser Ala Ala Gly His Leu Asp Val Val
 1          5          10          15
Arg Ser Leu Leu Arg Arg Gly Ala Ser Val Asn Arg Thr Thr Arg Thr
 20          25          30
Asn Ser Thr Pro Leu Arg Ala Ala Cys Phe Asp Gly His Leu Glu Val
 35          40          45
Val Arg Tyr Leu Val Gly Glu His Gln Ala Asp Leu Glu Val Ala Asn
 50          55          60
Arg His Gly His Thr Cys Leu Met Ile Ser Cys Tyr Lys Gly His Arg
 65          70          75          80
Glu Ile Ala Arg Tyr Leu Leu Glu Gln Gly Ala Gln Val Asn Arg Arg
 85          90          95
Ser Ala Lys Gly Asn Thr Ala Leu His Asp Cys Ala Glu Ser Gly Ser
 100          105          110
Leu Glu Ile
 115

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```
<210> 6321
<211> 1442
<212> DNA
<213> Homo sapiens
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<400> 6321  
aagctttgcc agagtgggtt ggctacagtc agctcttcta caggaagtgg cattttccac  
60

ttgtgaaacg gtaggtcatt cctgcctca tgcagaactc agccctgtgg agctccacca  
120  
cctggcccag gccctgccc catgcaacct cccggggtgg ccctcaatga cctgcacgtc  
180  
ccttcactct aaggaacct gagttacagt ggccttaagg acatgtgtat ttagaagcct  
240  
ttgtgtacaa actagctctg tgcgtctca gtttaccgtc ctacactttt attgttagct  
300  
gttctttaag tttctcacac attattggca attatgtaaa aatcaagaac ctctataaaa  
360  
caacctggct tcccaggtgg aattccgcat acagccaaaa ctggattcca gtgtggccag  
420  
acaacgcccc tgtcccaatt taagagtgcg tgcctcacc accatccgga gtggcctctc  
480  
tgtcagtgtg tgatgtggcc agggcagtgt ccacctgaac ttctcctca tgggactgaa  
540  
caacggggga ctccccccc tcaactgatgt cccgggtggc cgagtgggtg cagggtggagg  
600  
aagaagaagg tggcttggtt cttaattctg agggatttgg aacctggagg gtaatctcat  
660  
tctgacaggt actggattca ggcctaagg cgggggacag cacagtgttc tcttctctc  
720  
cagagttcag gaagagctcc agggcctcct ggtccgatat gtccatcagg tccatctgct  
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840  
caatctgcag gtagccagtg gacagggtact gctgctccat gtctgctgg aaggcttctc  
900  
caaaaaaact ctgccgtcc ttacgcttca tttgctgggt gtgctccatt tccaggacct  
960  
tctggggcgt ctctgcatct agttcagagg gatccctctg actattttcg gtgagtcctg  
1020  
gagatgacat ggatgtgaga cctgaatgag tgaacagaag ctcaagtctg gtcaagtga  
1080  
gcctccagtt accaggcagc tgcctcacg tgcattctt gggatgtaga acaaaggaa  
1140  
tgaggctgaa gccagaagca ggtttttcca aagaaattgt agtaagccta ttagttttt  
1200  
gctgatggct taagcagata tacattggaa tctactgcct ctataaaagc aaaatgcaag  
1260  
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1320  
ctcaaaatgg aggggagggg aggctgaaaa taactaaatc caacagaatt tgtcatctag  
1380  
gtacaaagat gcttttagta cacagcaaaa gagagatgaa atcttgctgt ttgaaagtag  
1440  
ta  
1442

&lt;210&gt; 6322

&lt;211&gt; 196

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



<400> 6322  
Met Ser Ser Pro Gly Leu Thr Glu Asn Ser Gln Arg Asp Pro Ser Glu  
1 5 10 15  
Leu Asp Ala Glu His Ala Gln Lys Val Leu Glu Met Glu His Thr Gln  
20 25 30  
Gln Met Lys Leu Lys Glu Arg Gln Lys Phe Phe Glu Glu Ala Phe Gln  
35 40 45  
Gln Asp Met Glu Gln Gln Tyr Leu Ser Thr Gly Tyr Leu Gln Ile Ala  
50 55 60  
Glu Arg Arg Glu Pro Ile Gly Ser Met Ser Ser Met Glu Val Asn Val  
65 70 75 80  
Asp Met Leu Glu Gln Met Asp Leu Met Asp Ile Ser Asp Gln Glu Ala  
85 90 95  
Leu Asp Val Phe Leu Asn Ser Gly Gly Glu Glu Asn Thr Val Leu Ser  
100 105 110  
Pro Ala Leu Gly Pro Glu Ser Ser Thr Cys Gln Asn Glu Ile Thr Leu  
115 120 125  
Gln Val Pro Asn Pro Ser Glu Leu Arg Ala Lys Pro Pro Ser Ser Ser  
130 135 140  
Ser Thr Cys Thr Asp Ser Ala Thr Arg Asp Ile Ser Glu Gly Gly Glu  
145 150 155 160  
Ser Pro Val Val Gln Ser Asp Glu Glu Glu Val Gln Val Asp Thr Ala  
165 170 175  
Leu Ala Thr Ser His Thr Asp Arg Glu Ala Thr Pro Asp Gly Gly Glu  
180 185 190  
Asp Ser Asp Ser  
195

What is claimed is:

1. An isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from the group consisting of SEQ ID NO:2 $n$ , wherein  $n$  is any integer 1-3161, or the complement thereof.
2. The isolated nucleic acid molecule of claim 1, said molecule hybridizing under stringent conditions to a nucleic acid sequence complementary to a nucleic acid molecule comprising the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 $n$ , wherein  $n$  is any integer 1-3161, or the complement thereof.
3. The isolated nucleic acid molecule of claim 1, said molecule encoding a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 $n$ , wherein  $n$  is any integer 1-3161, or an amino acid sequence comprising one or more conservative substitutions in the amino acid sequence selected from the group consisting of SEQ ID NO: 2 $n$ .
4. The isolated nucleic acid molecule of claim 1, wherein said molecule encodes a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 $n$ , wherein  $n$  is any integer 1-3161.
5. The isolated nucleic acid molecule of claim 1, wherein said molecule comprises the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 $n$ -1, wherein  $n$  is any integer 1-3161, or the complement thereof.
6. An oligonucleotide less than 100 nucleotides in length and comprising at least contiguous nucleotides selected from the group consisting of SEQ ID NO:2 $n$ -1, wherein  $n$  is any integer 1-3161, or the complement thereof.
7. A vector comprising the nucleic acid molecule of claim 1.

8. The vector of claim 7, wherein said vector is an expression vector.
9. A host cell comprising the isolated nucleic acid molecule of claim 1.
10. A substantially purified polypeptide comprising an amino acid sequence at least 80% identical to a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
11. The polypeptide of claim 10, wherein said polypeptide comprises the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
12. An antibody that selectively binds to the polypeptide of claim 10.
13. A pharmaceutical composition comprising a therapeutically or prophylactically effective amount of a therapeutic selected from the group consisting of:
  - a) the nucleic acid of claim 1;
  - b) the polypeptide of claim 10; and
  - c) the antibody of claim 12;and a pharmaceutically acceptable carrier.
14. A kit comprising in one or more containers, a therapeutically or prophylactically effective amount of the pharmaceutical composition of claim 13.
15. A method of producing the polypeptide of claim 10, said method comprising culturing the host cell of claim 9 under conditions in which the nucleic acid molecule is expressed.
16. A method of detecting the presence of the polypeptide of claim 10 in a sample, comprising contacting the sample with a compound that selectively binds to said polypeptide under conditions allowing the formation of a complex between said polypeptide and said

compound, and detecting said complex, if present, thereby identifying said polypeptide in said sample.

17. A method of detecting the presence of a nucleic acid molecule of claim 1 in a sample, the method comprising contacting the sample with a nucleic acid probe or primer that selectively binds to the nucleic acid molecule and determining whether the nucleic acid probe or primer bound to the nucleic acid molecule of claim 1 is present in the sample.

18. A method for modulating the activity of the polypeptide of claim 10, the method comprising contacting a cell sample comprising the polypeptide of claim 10 with a compound that binds to said polypeptide in an amount sufficient to modulate the activity of the polypeptide.

19. The use of a therapeutic in the manufacture of a medicament for treating a syndrome associated with a ORFX-associated disorder, wherein said therapeutic is selected from the group consisting of:

- a) the nucleic acid of claim 1;
- b) the polypeptide of claim 10; and
- c) the antibody of claim 12.

20. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) contacting a test compound with the polypeptide of claim 10; and
- b) determining if said test compound binds to said polypeptide,

wherein binding of said test compound to said polypeptide indicates the test compound is a modulator of activity or of latency or predisposition to an ORFX-associated disorder.

21. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) administering a test compound to a test subject at an increased risk ORFX-associated disorder, wherein said test subject recombinantly expresses a polypeptide encoded by the nucleotide of claim 1;

- b) measuring expression the activity of said protein in said test subject;
- c) measuring the activity of said protein in a control subject that recombinantly expresses said protein and is not at increased risk for an ORFX-associated disorder; and
- d) comparing expression of said protein in said test subject and said control subject, wherein a change in the activity of said protein in said test subject relative to said control subject indicates the test compound is a modulator or of latency of predisposition to an ORFX-associated disorder.

22. The method of claim 20, wherein said test animal is a recombinant test animal that expresses a test protein transgene or expresses said transgene under the control of a promoter at an increased level relative to a wild-type test animal, and wherein said promoter is not the native gene promoter of said transgene.

23. A method for determining the presence of or predisposition to a disease associated with altered levels of a polypeptide of claim 11 in a subject, the method comprising:

- a) measuring the amount of the polypeptide in a sample from said subject; and
- b) comparing the amount of said polypeptide in step (a) to the amount of the polypeptide present in a control sample,

wherein an alteration in the level of the polypeptide in step (a) as compared to the control sample indicates the presence of or predisposition to a disease in said subject.

24. The method of claim 23, wherein said subject is a human.

25. A method for determining the presence of or predisposition to a disease associated with altered levels the nucleic acid molecule of claim 1 in a subject, the method comprising:

- a) measuring the amount of the nucleic acid in a sample from the mammalian subject; and
- b) comparing the amount of said nucleic acid in step (a) to the amount of the nucleic acid present in a control sample,

wherein an alteration in the level of the nucleic acid in step (a) as compared to the control sample indicates the presence of or predisposition to said disease in said subject.

26. The method of claim 25, wherein said subject is a human.

27. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject a polypeptide of claim 10 in an amount sufficient to alleviate or prevent said pathological condition.

28. The method of claim 27, wherein said subject is a human.

29. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject a nucleic acid molecule of claim 1 in an amount sufficient to alleviate or prevent said pathological condition.

30. The method of claim 29, wherein said subject is a human.

31. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject an antibody of claim 12 in an amount sufficient to alleviate or prevent said pathological condition.

32. The method of claim 31, wherein said subject is a human.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
5 October 2000 (05.10.2000)

PCT

(10) International Publication Number  
WO 00/58473 A3

(51) International Patent Classification<sup>7</sup>: C12N 15/12,  
C07K 14/47, 16/18, G01N 33/566, C12Q 1/68, C12N  
15/11, 15/62, A01K 67/027, A61K 38/00

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(21) International Application Number: PCT/US00/08621

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(22) International Filing Date: 31 March 2000 (31.03.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/127,607	31 March 1999 (31.03.1999)	US
60/127,636	2 April 1999 (02.04.1999)	US
60/127,728	5 April 1999 (05.04.1999)	US
09/540,763	30 March 2000 (30.03.2000)	US

(81) Designated States (*national*): AE, AL, AM, AT, AU, AZ,  
BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK,  
DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,  
IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,  
LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,  
RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,  
UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,  
KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent  
(AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent  
(AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,  
MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GW, ML, MR, NE, SN, TD, TG).

(63) Related by continuation (CON) or continuation-in-part  
(CIP) to earlier applications:

US	60/127,607 (CIP)
Filed on	31 March 1999 (31.03.1999)
US	60/127,636 (CIP)
Filed on	2 April 1999 (02.04.1999)
US	60/127,728 (CIP)
Filed on	5 April 1999 (05.04.1999)
US	09/540,763 (CIP)
Filed on	30 March 2000 (30.03.2000)

Published:

- With international search report.
- Before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments.

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(88) Date of publication of the international search report:  
25 January 2001

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*For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.*

WO 00/58473 A3

(54) Title: NUCLEIC ACIDS INCLUDING OPEN READING FRAMES ENCODING POLYPEPTIDES; "ORFX"

(57) Abstract: The present invention provides open reading frames encoding isolated polypeptides, as well as polynucleotides en-  
coding ORFX and antibodies that immunospecifically bind to ORFX or any derivative, variant, mutant, or fragment of the ORFX  
polypeptides, polynucleotides or antibodies. The invention additionally provides methods in which the ORFX polypeptide, polynu-  
cleotide and antibody are used in detection and treatment of a broad range of pathological states, as well as to other uses.

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US 00/08621

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/12 C07K14/47 C07K16/18 G01N33/566 C12Q1/68  
C12N15/11 C12N15/62 A01K67/027 A61K38/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K G01N A01K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EMBASE, MEDLINE, CAB Data, PAJ, EPO-Internal, WPI Data, STRAND

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	COLE S.T.: "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence." NATURE, vol. 393, 11 June 1998 (1998-06-11), XP002144873 sequence	
A	--- LAMERDIN J.E.: "Sequence analysis of a 3.5 Mb contig in human 19p13.3 containing a serine protease gene cluster." EMEST DATABASE ENTRY, 8 February 1999 (1999-02-08), XP002144874 sequence --- -/--	

☒ Further documents are listed in the continuation of box C.

☐ Patent family members are listed in annex.

### \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"O" document referring to an oral disclosure, use, exhibition or other means

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

21 August 2000

Date of mailing of the international search report

23.11.00

Name and mailing address of the ISA

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Authorized officer

Hix, R



## INTERNATIONAL SEARCH REPORT

Internat. Application No

PCT/US 00/08621

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	M.D. ADAMS ET AL.: "The genome sequence of <i>Drosophila melanogaster</i> ." SCIENCE, vol. 287, 24 March 2000 (2000-03-24), pages 2185-2195, XP002144875 the whole document -----	6

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 00/08621

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claims 27 to 32 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
  
claims 1 to 32 partially

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claim : 1 to 32 partially

Isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from a group consisting of SEQ ID NO 2n wherein n is 1, oligonucleotides less than 100 nucleotides in length and comprising at least 6 contiguous nucleotides from the above sequence, polypeptides encoded by said nucleotides, antibodies that bind to said polypeptide, pharmaceutical composition comprising said polypeptide and methods of detection, screening, therapeutic uses involving said polypeptide.

2. Claim : .

Inventions 2 to 3161

claims 1 to 32 partially :

Isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from a group consisting of SEQ ID NO 2n wherein n is 2 to 3161, oligonucleotides less than 100 nucleotides in length and comprising at least 6 contiguous nucleotides from the above sequence, polypeptides encoded by said nucleotides, antibodies that bind to said polypeptide, pharmaceutical composition comprising said polypeptide and methods of detection, screening, therapeutic uses involving said polypeptide.

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